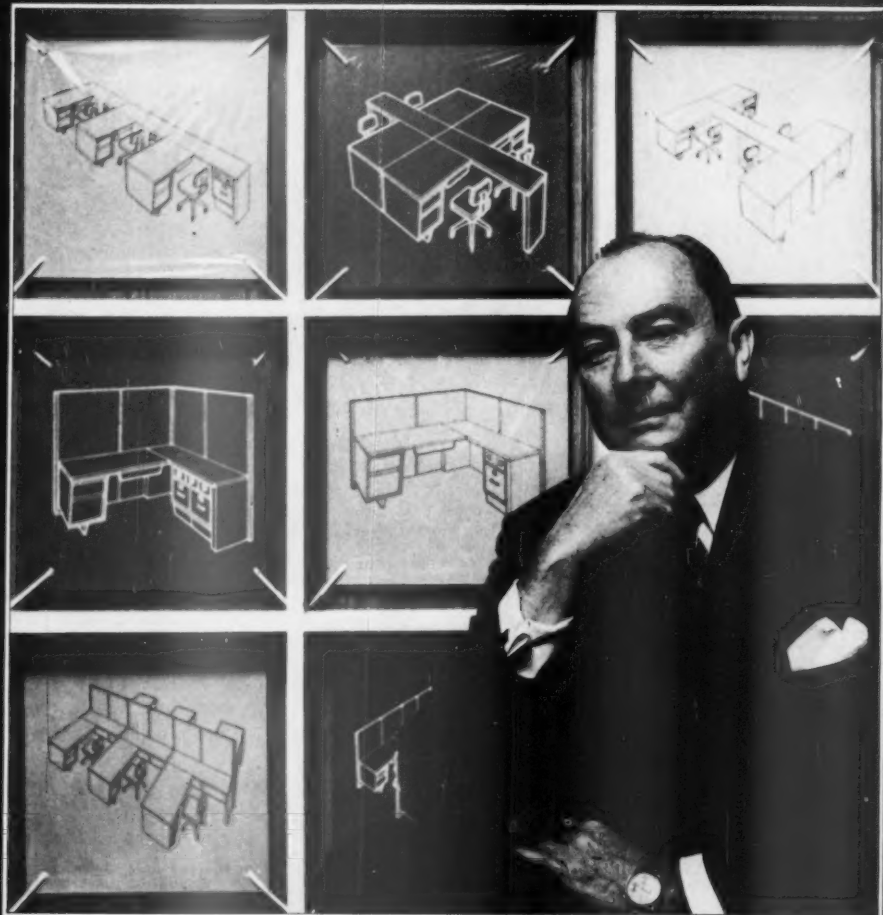
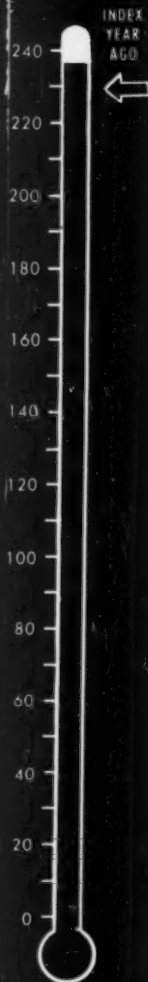


# BUSINESS WEEK

SIGN OF A  
**Stock Break?**  
PAGE 132



A. C. Howard of Globe-Wernicke: An office can be glamorous (Page 116)

A MCGRAW-HILL PUBLICATION

JAN. 12, 1952



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What will Koroseal do next? You

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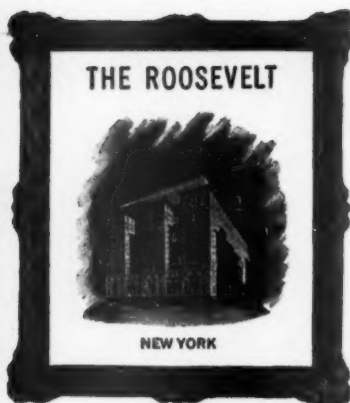
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*Koroseal Flexible Materials*



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ARROWHEAD SPRINGS



SAN BERNARDINO, CAL.

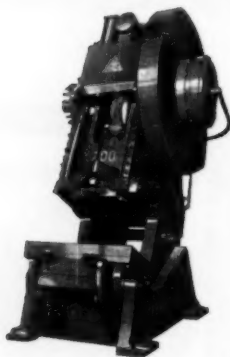


## Mary Lou thinks Santa's very wise

She's no expert on industrial production, but Mary Lou completely approves the way Santa does things. Her new roller skates are light in weight, smooth and strong. Her doll buggy and her toy stove and—oh, lots of the things she found under the Christmas tree—have those same desirable characteristics.

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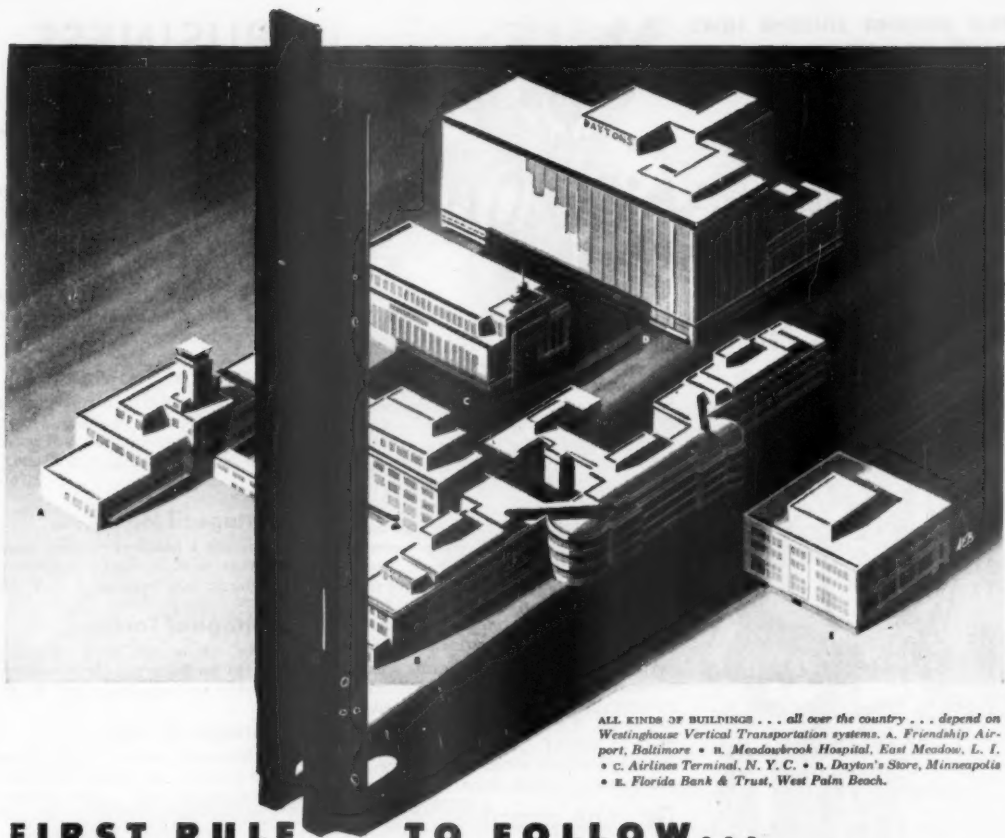
Herman C. Sturm

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BUSINESS WEEK • Jan. 12, 1952



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## In BUSINESS this WEEK . . .

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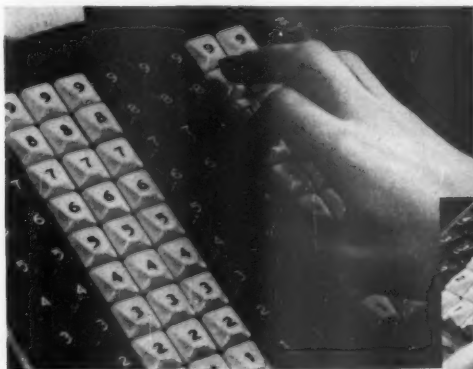


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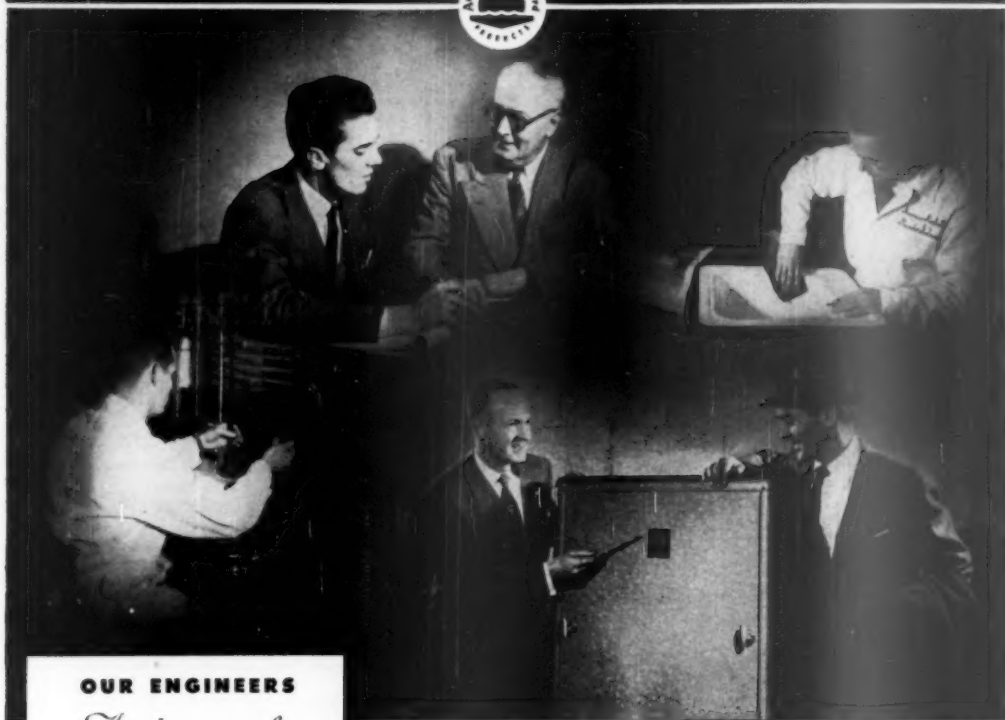
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# BUSINESS OUTLOOK

BUSINESS WEEK

JANUARY 12, 1952

A  
BUSINESS  
WEEK  
SERVICE

Labor still isn't scarce, over-all. If it were, you most certainly would see more intensive use made of the people holding jobs.

There isn't a major industry in the U. S. in which workers now are putting in so many hours per week as a year ago. (An exception is ordnance. It has a work week in excess of 44 hours; but ordnance has still to top 50,000 employees, so it weighs in lightly.)

Few emergency workers will be drawn into the labor force until the work week lengthens over its recent averages.

Hours worked per week in metalworking and machinery have been running closer to a year ago than most lines—as might be expected.

These industries not only supply the raw materials and the tools for arms production; they also are called upon to equip the vast plant expansion under way throughout the nation.

Even so, hours worked in metal fabricating have been running under 42 weekly. Machinery has been averaging only about 43.

Manufacturing's work week averaged about 40½ hours during the late months of 1951, off from better than 41 a year earlier.

Makers of durable goods are setting the pace with 41½ hours. Non-durables are barely exceeding 39.

Employment in manufacturing shows that the labor pinch still is in the future.

For 15 months factories have had on the payrolls about 16-million hands. That's fully 1½-million below the World War II peak—and today's civilian labor force is 8-million larger than it was then.

Even industries turning out durable goods are employing only about 1% more production workers now than a year ago.

Layoffs add another clue to the relative slack in the labor force.

The Bureau of Labor Statistics says factory layoffs in the last half of 1951 were the highest for the season in a decade.

A lot of this can be attributed to cutbacks in civilian hard goods—autos, refrigerators, appliances, etc. Another factor, of course, has been the slump in both hard goods and soft goods for civilian use.

Yet the November rate of 16 layoffs per 1,000 workers was unusually high, and hirings of 37 per 1,000 relatively low.

Factory pay continues to rise, even though the job market hasn't tightened so much as expected.

Average weekly earnings in all manufacturing have been running around \$65.25. That's \$3 a week better than a year ago.

In durable goods, the rate has been nearly \$71 a week; in machinery, the weekly check is around \$77. Both are up nearly \$5 in a year. Soft goods lines, still below \$59 a week, nevertheless top last year.

Unemployment seems to have been climbing rather rapidly lately.

A good part of this is seasonal. A lot of casual workers always are laid off after the holiday rush.

There may be more to it now than in the average year, however. Unemployment has been rising in the cut-back automotive lines. And New

# BUSINESS OUTLOOK (Continued)

**BUSINESS WEEK**  
**JANUARY 12, 1952**

York's unemployment insurance claims indicate some trouble in apparel.

Whatever the causes, January's unemployment figure will be a good bit higher than the prevailing 1.7-million in recent months. (December's total was 1,674,000, down about 150,000 from November.)

The tug-of-war for materials between the military, industry, and consumers is changing the makeup of construction expenditures drastically.

However, you'd never guess it from the totals. The construction outlays in December paralleled the high rate of the year before—just as it had been doing for the three preceding months.

Rising military needs now cut into most other types of building.

In mid-1951 commercial buildings were going up at an annual rate of \$1.6-billion; by yearend the drop was more than 50%. Nevertheless, total 1951 commercial outlays were a shade over 1950.

Private industrial construction appears to have passed its peak—although spending to tool new plants still has a long way to go.

This is a new phase that was bound to come. Controls increasingly will curb outlays for new structures (page 15); at the same time, pressure to equip new plants and get them into production will increase.

In December private industry spent \$147-million for new factory buildings—down 27% in three months.

All private construction in 1951—just under \$21-billion—was only 2% ahead of 1950. And it was below 1950 as the year drew to a close.

However, public construction is more than filling the gap. It topped \$9-billion for the year, running 27% ahead of 1950.

Big gainers in the public categories were industrial (dominantly atomic energy installations) and military and naval facilities.

Government outlays on industrial plant were \$86-million in December, \$880-million for the year. This put the 1951 total 293% ahead of 1950. Military and naval building rose 490% to top \$1-billion.

Homebuilding financed by private funds is in for a continuing slide.

The total dropped to \$10.9-billion in 1951, down \$1.7-billion—or 13%—for the year. By December the rate of decline had widened to 19%. New curbs aim at 650,000 starts this year, as against 1.1-million last.

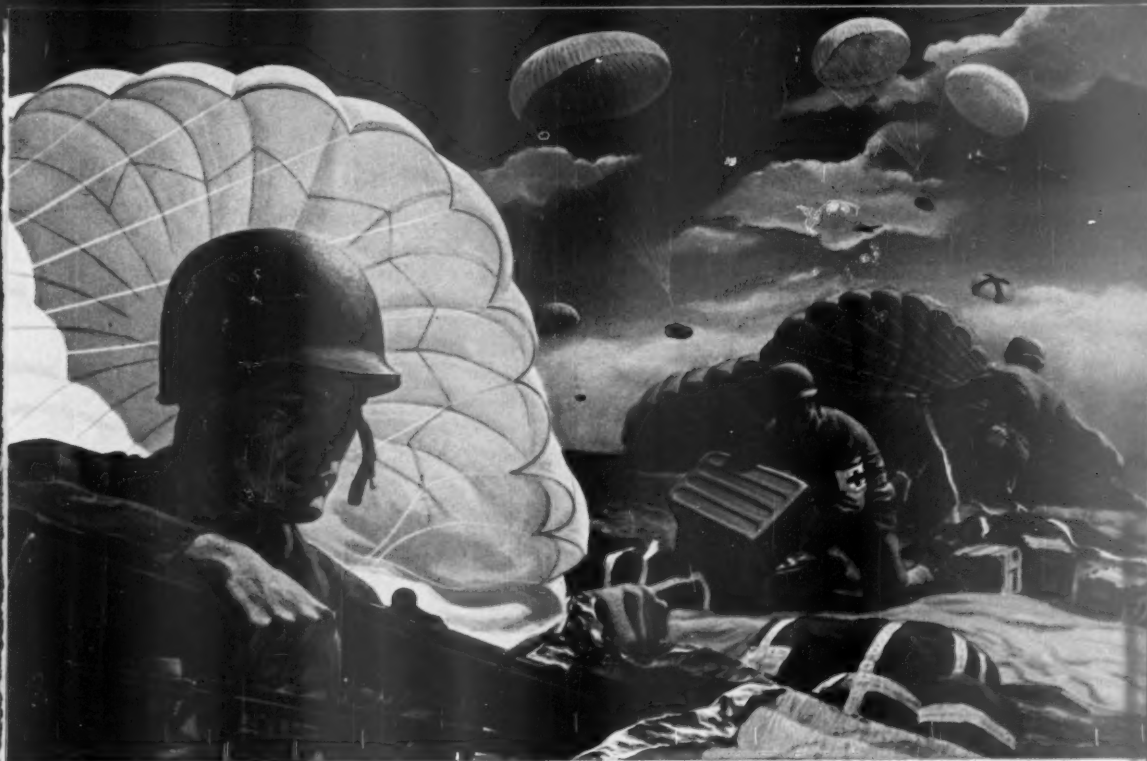
Steel output is scheduled at 102% of capacity this week in spite of several open-hearth shutdowns for lack of scrap.

The first open hearths taken off were small, accounting for something over 10,000 tons a week—against weekly output above 2-million tons.

But the scrap pinch may get tighter (page 22). So mills can't very well keep open hearths fired in the hope that the next freight car shunted down the siding will be full of scrap.

Scrap shortages may play a hand in the steel wage negotiations. Mills won't be too concerned over a strike if they already are faced with shutdowns for want of scrap to charge their furnaces.

And behind it all is the weather. Cold and snow hinder scrap collections. Bad weather could increase the chances of a wage deadlock.



Parachute supply drop in training maneuvers. Colors of 'chutes identify types of supplies.

## ...To Protect the Supplies that Protect Us !

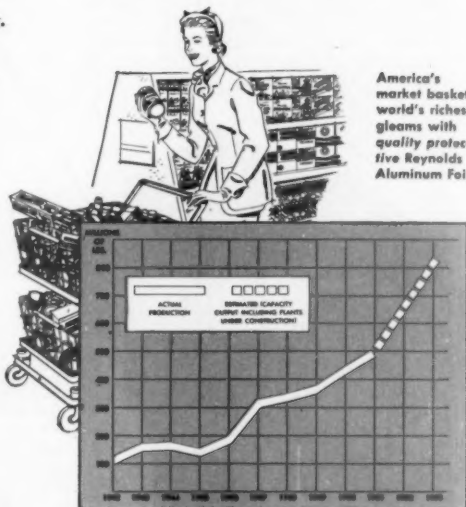
A big air drop is a spectacular demonstration of *aluminum foil packaging*. Rations, medical supplies and a vast variety of items must be protected against moisture, cold, heat and damaging light rays. Guns and many aircraft and tank parts must be wrapped to defy rust...though ever more parts are now made of rustproof aluminum. Miles of foil are needed...in addition to the tons of aluminum required for planes, pontoon bridges, PT-boats and other vital equipment.

The civilian uses of aluminum multiply in the same amazing way. More and more manufacturers want to join the parade of brilliant, color-printed foil packages that sell themselves on America's supermarket shelves. More women look for more of their own pure aluminum foil, the original and genuine Reynolds Wrap. And the demand grows for aluminum parts in automobiles and appliances, for aluminum roofing, siding, gutters, windows, reflective insulation.

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world's richest,  
gleams with  
quality protective  
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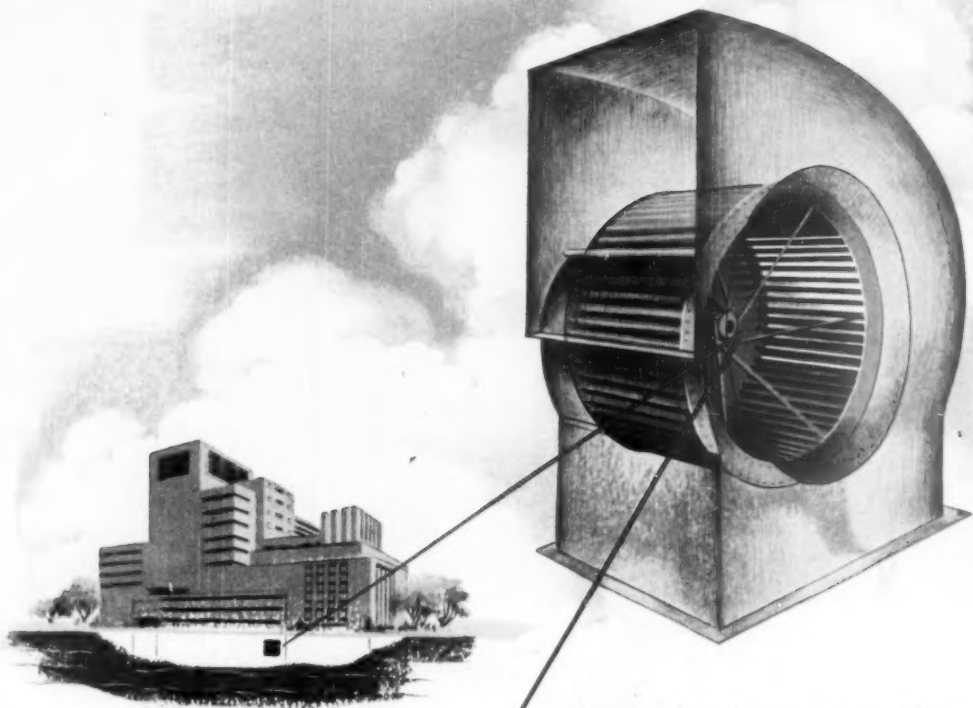
The expanding primary aluminum production of Reynolds Metals Company—  
a historic chapter in the company's 33 years of continuing growth.



# REYNOLDS ALUMINUM

"The Kate Smith Evening Hour" on Television, Wednesdays — Tallulah Bankhead in "The Big Show" on Radio, Sundays — NBC NETWORKS

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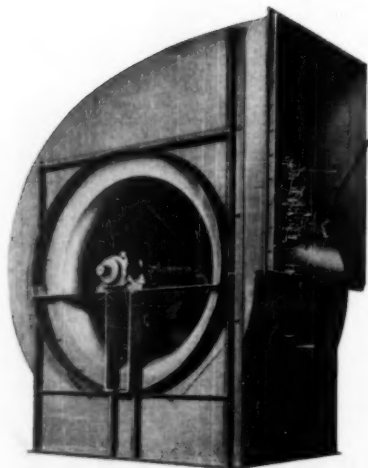
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For data on how the Sirocco Fan can best be applied to your business, consult the nearest American Blower Branch Office.

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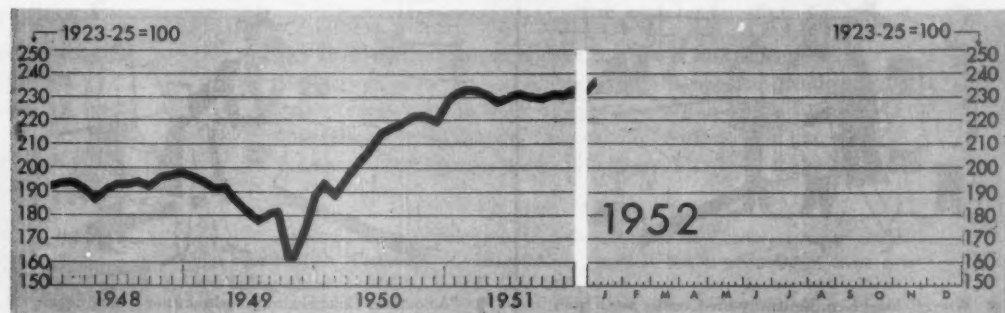
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# FIGURES OF THE WEEK



**Business Week Index (above) . . . . .** \*236.5    †234.5    234.3    229.4    173.1

## PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Steel ingot production (thousands of tons) . . . . .	2,041	2,039	2,081	1,981	1,281
Production of automobiles and trucks . . . . .	58,275	†39,488	116,932	99,955	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands) . . . . .	\$35,612	\$31,414	\$37,355	\$62,421	\$17,083
Electric power output (millions kilowatt-hours) . . . . .	7,149	6,922	7,444	6,602	4,238
Crude oil and condensate production (daily av., thousands of bbls.) . . . . .	6,187	6,204	6,221	5,788	4,751
Bituminous coal production (daily average, thousands of tons) . . . . .	1,554	†1,783	2,024	1,926	1,745

## TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars) . . . . .	76	66	78	77	82
Carloadings: all other (daily av., thousands of cars) . . . . .	52	46	59	50	53
Department store sales (change from same week of preceding year) . . . . .	+11%	†+3%	+4%	+20%	+30%
Business failures (Dun and Bradstreet, number) . . . . .	124	163	136	144	217

## PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100) . . . . .	461.2	458.8	462.0	516.4	311.9
Industrial raw materials, daily index (U.S. BLS, Aug., 1939 = 100) . . . . .	317.2	318.2	318.6	366.0	198.8
Domestic farm products, daily index (U.S. BLS, Aug., 1939 = 100) . . . . .	358.4	361.0	360.8	396.5	274.7
Finished steel composite (Iron Age, lb.) . . . . .	4.131¢	4.131¢	4.131¢	4.131¢	2.686¢
Scrap steel composite (Iron Age, ton) . . . . .	\$42.00	\$42.00	\$42.00	\$45.09	\$20.27
Copper (electrolytic, Connecticut Valley: lb.) . . . . .	24.500¢	24.500¢	24.500¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.) . . . . .	\$2.52	\$2.52	\$2.55	\$2.40	\$1.97
Cotton, daily price (middling, ten designated markets, lb.) . . . . .	42.15¢	41.81¢	42.80¢	43.77¢	30.56¢
Wool tops (Boston, lb.) . . . . .	\$2.25	\$2.25	\$2.25	\$3.85	\$1.51

## FINANCE

90 stocks, price index (Standard & Poor's) . . . . .	189.5	188.4	185.6	163.1	135.7
Medium grade corporate bond yield (Baa issues, Moody's) . . . . .	3.62%	3.63%	3.61%	3.19%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate) . . . . .	2½%	2½%	2½%	1½%	1-1½%

## BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks . . . . .	53,370	†54,059	53,204	51,292	††45,210
Total loans and investments, reporting member banks . . . . .	74,217	†74,878	73,072	71,212	††71,147
Commercial and agricultural loans, reporting member banks . . . . .	21,419	†21,592	21,006	17,859	††9,221
U. S. gov't and guaranteed obligations held, reporting member banks . . . . .	32,224	†32,522	31,856	33,294	††49,200
Total federal reserve credit outstanding . . . . .	24,825	25,576	25,081	21,879	23,883

## MONTHLY FIGURES OF THE WEEK

Personal income (seasonally adjusted, in billions).....	November	\$256.7	\$257.5	\$236.4	\$177.7
Farm income (seasonally adjusted, in billions).....	November	\$21.6	\$23.0	\$20.9	\$18.9
Consumer credit outstanding (in millions).....	November	\$19,996	\$19,586	\$19,405	\$6,802
Installment credit outstanding (in millions).....	November	\$13,259	\$13,199	\$13,306	\$3,025
Manufacturers' inventories (seasonally adjusted, in billions).....	November	\$41.4	\$41.4	\$32.2	\$20.5
Wholesalers' inventories (seasonally adjusted, in millions).....	November	\$10,010	\$10,109	\$9,005	\$5,505
Retailers' inventories (seasonally adjusted, in millions).....	November	\$18,408	\$18,545	\$17,704	\$9,359
Employment (in millions).....	December	61.0	61.3	60.3	55.2
Unemployment (in millions).....	December	1.7	1.8	2.2	2.3
Private expenditures for new construction (in millions).....	December	\$1,521	\$1,692	\$1,721	\$803
Public expenditures for new construction (in millions).....	December	\$701	\$803	\$513	\$197

\*Preliminary, week ended Jan. 5.

††Estimate (BW—Jul. 12 '47, p.16).

‡ Data for "Latest Week" on each series on request

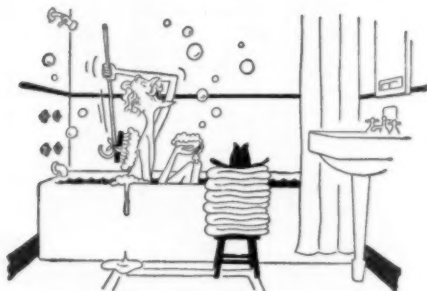
† Revised.



1. When Colonel Ken, Kentucky-bred, comes north from his plantation, he always wires ahead to get a Statler reservation. "Ah travel quite a piece," he drawls, "and always feel it's best to stay at Statler, where Ah know Ah sholy am a guest."



2. "A Southern Colonel always feels he knows a thoroughbred, and Ah know one that beats 'em all—mah good old Statler bed. It's soft as blue grass in a field, and after all, why not? Eight hundred thirty-seven springs are what each bed has got."



3. "When city doin's get me down, Ah love mah Statler tub. Hot water melts mah cares away as Ah begin to scrub. With lots of soap right by mah side Ah really feel supreme, and piles of snowy Statler towels fulfill mah fondest dream."



4. "And in the Statler dining room the chicken, southern-fried, is so blame good it almost wounds mah famous Southern pride. And all the other food is grand—the portions, Ah declare, are just about as generous as Ah've found them anywhere."



5. "Last, but not least, Ah've always found the Statler's close as pie to shows and shops and business, too. Why, everything's near by. To sum it up, Ah'm proud to say Ah've found this is the case—for tops in hospitality, the Statler's just the place."



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(READY FOR OCCUPANCY JUNE, 1932)

# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
JAN. 12, 1952

A  
BUSINESS

WEEK

SERVICE

The 1952 political season opened this week with a bang. Eisenhower came out—available for the Republican nomination. Taft's forces went to work on him as a pig-in-a-poke candidate. Congress returned, but in a mood to do nothing that can wait. Truman called his tune: peace, prosperity, Fair Deal (page 26).

As you follow developments, remember this: Politics is now the chief business in Washington. In election years it takes precedence over everything else.

Eisenhower's big strength at the start is the wide public belief that he's a winner. Anti-Truman Democrats cotton to him.

But he has organization backing, too—Dewey in New York, Duff in Pennsylvania, Lodge and Saltonstall in Massachusetts, and in his Midwest home state, Kansas. Then, he has supporters in most state organizations.

Getting the nomination will be no pushover. Eisenhower's appeal today is mostly to the rank and file. Professional politicians will be in control of the convention. And they've got to be shown—shown that he can get votes and that he can and will win. That's the job his backers are taking on.

Taft is the man to beat. He's the favorite of the right-wingers and sure of a big bloc of delegates. Today he leads.

But the nomination won't be sewed up in advance. The claims of candidates always are extreme. When you come right down to it, there's no way a candidate can hold his delegates, once they want to break away to the man they think will be the convention winner.

What are Eisenhower's policies? He has a record of statements, not on all issues, but on enough to give the general drift. He will show as internationally minded on foreign policy, right-of-center on home issues. And the odds are that he himself will say where he stands well ahead of convention time. He has no plans to campaign. But don't read his availability statement as meaning he will be silent until July.

Stuart Symington, retiring head of the Reconstruction Finance Corp., will be back in government. The plans made for him call for a rest, then a key job with Truman.

Harry McDonald, Symington's RFC successor, is a businessman and a Republican. He's giving up the chairmanship of the Securities & Exchange Commission.

Donald Cook is a good bet to head the SEC. He's vice-chairman now, but spends much of his time with Sen. Johnston's defense committee.

Thomas C. Buchanan won't change Federal Power Commission policies. As the new chairman, he will try to increase the regulation of natural gas. But he's out-voted by the present commission majority.

The bad news on second-quarter cutbacks is out (page 140). Just about all civilian hard goods are clipped.

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
JAN. 12, 1952

**Autos:** The industry will be allowed steel and aluminum for 900,000 units. But the copper allotment is for only 800,000.

**Home appliances** get nicked a little. Here again the tightening is mostly on copper, with final output depending on substitutes.

**Construction** will be pinched in all categories. There will be fewer exceptions on commercial building, already tightly controlled by NPA. And homebuilding is threatened with a 600,000 limitation on new starts.

•  
**Companies planning new expansions** are in for a jolt. NPA's intention is to slam the brakes on industrial construction, beginning with the second quarter. Administrator Fleischmann's position is that expansions already in the works are as much as can be supported by the economy for the time being. So, with exceptions here and there, no scarce materials will be allocated for new starts in the next quarter. Such projects will have to wait until late in the year—or later.

•  
**Structural steel** still is a bottleneck. It will be in better supply late in the year, but expansions take more than structural steel. For example:

**Copper** is even more acute. It's needed for wiring, plumbing, etc., and will remain short after steel becomes more plentiful.

**Machinery will be harder than ever to get.** Defense gets first call, starting in February, and will take most tools well into 1953.

**Then there's the components problem.** Shortages will fan out as military production rises. This, to Fleischmann, raises the question of whether a new plant could operate even if it could be built.

•  
**Additional facilities for military end items** are excepted from the construction crackdown. So, too, plants for military components not available elsewhere.

**A new round of aluminum expansion** is in prospect to back up plans for a larger Air Force. But it may not get going before midyear.

**Canadian aluminum will be bought.** Our defense people fumbled this one last year and passed up the Canadian metal. But new negotiations are starting, and this time the U.S. will buy. Government metal experts seem convinced aluminum is the way to beat the copper shortage.

•  
**This may be the turning point in the post-Korean expansion.** Plant and equipment outlays will be huge this year. No doubt of that. It's guaranteed by projects now in the works. But NPA's hold-down policy on new starts could bring on a slackening before the yearend. This tapering may be temporary. Once shortages begin to ease up, delayed plans will be reexamined, and industry will go ahead with them if the long-term business outlook is still favorable. So delays now may merely mean a deferment of new plants—more activity later.

•  
**Note the change in the defense timetable—the stretching out** (page 19). It's partly the result of delays. But it's also partly the result of new plans for Air Force expansion.

**It means an extra year of cramping, at least—arms budgets of \$50-billion for two more years, instead of one, and shortages and controls lasting into 1954, instead of disappearing in 1953.**

IT'S

easy Going...



The 32-knot THUNDERBIRD, owned by George A. Horvath, operates out of Long Island Sound.

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New cruising pleasure, with a minimum of steering effort and fatigue, is yours when you install a Sperry Magnetic Compass Pilot.

When your boat cruises in open waters, a Sperry Magnetic Compass Pilot holds her on course automatically—even under the roughest operating conditions. At the same time, a small Remote Control device gives you instantaneous, single-hand rudder control from the chart table or outside the wheelhouse.

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The Sperry Magnetic Compass Pilot brings to pleasure craft the advantages that the Sperry automatic Gyro-Pilot brings to larger vessels.

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THUNDERBIRD's Captain Hugo Buechelmaier plots his course while a Sperry Magnetic Compass Pilot does the steering.



*The costliest place  
to catch mistakes  
is here→*

Best-lighted area in most plants today is the inspection table. But good inspection lighting can only help catch errors *after* they occur—and time and materials have already been wasted.



*The cheapest place  
is here→*

By giving your production workers as good light as you give your inspectors, you prevent mistakes from happening. There are fewer errors, less fatigue, fewer accidents.



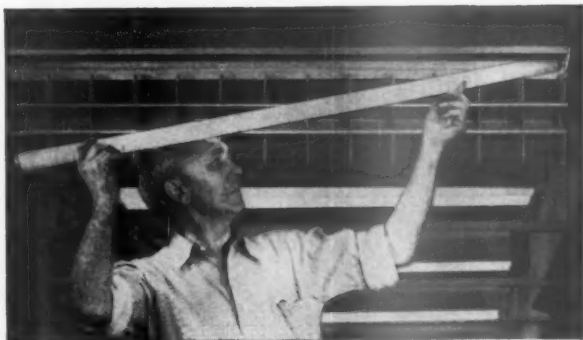
Photos courtesy Metals and Controls Corp., Attleboro, Mass.

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G-E FLUORESCENT LAMPS IN YOUR FIXTURES!**

As a result of recent improvements made by General Electric lamp research scientists, you now get:

- (1) Increased efficiency (improved phosphor)
- (2) Better uniformity (improved processes)
- (3) Less end blackening (purer materials, more accurate controls)
- (4) Longer life (new materials and methods)
- (5) Better color rendition (new Deluxe White lamps show colors as they really are)

Workers see better, work better under cool fluorescent light with less glare, fewer shadows. Newest form of fluorescent is G-E slimline—up to 8' long, single pin base, instant starting. Call your General Electric lamp supplier.

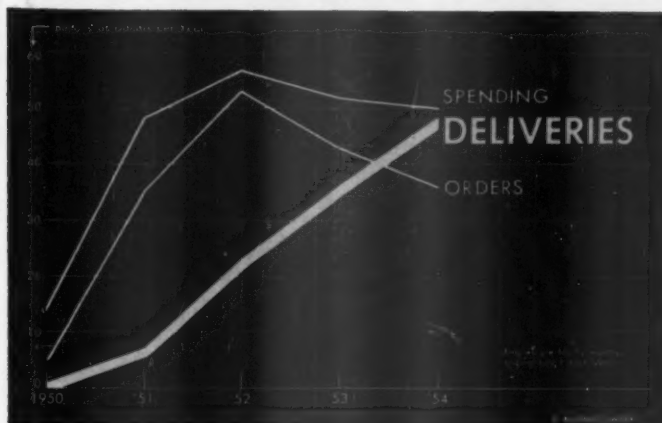


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**GENERAL  ELECTRIC**



**FREE BOOKLET!** How to light up for better production. For your copy of "Planned Lighting for Industry," write General Electric, Department 168-BW-1, Nela Park, Cleveland 12, Ohio.



● More weapons—maybe a 140-wing Air Force—are going to stretch spending peak through 1954.

● That will mean less critical materials for consumers goods.

● Despite anticipated up-curve in deliveries, there's little prospect of easing shortages—or controls.

## Mobilization Adds a Year to Timetable

The men in Washington who call the turn on national defense have taken another look at the mobilization program. They have decided that:

- We will stretch the timetable to get additional weapons—things such as the 140-wing Air Force.

- We'll stick to the original pattern for "guns plus butter."

The switch in timing means that we'll have a year more of:

**Big military budgets.** Continuing at a \$50-billion-plus rate through 1954, instead of tapering off in 1953.

**Arms production.** Plants will be busy with big orders into 1955. Deliveries to the armed forces will reach a peak in 1954.

**Materials shortages.** The tightest pinch on civilian production will come this year, as expected, but it won't ease much before late 1953.

**Controls.** We'll have them as long as there are shortages, probably until 1954.

**High taxes.** They'll be at present levels, maybe higher, as long as we have big military budgets—through 1955, anyhow.

President Truman, mobilization boss Wilson, and the top military brass have been taking stock of the defense program for several weeks. The end of the first full year of mobilization looked like a good time to check on how it was going.

First, mobilization had drawn fire

from responsible parties at both extremes of the "guns or butter" debate. Sen. Lyndon Johnson and his preparedness subcommittee had charged we were getting too much butter—consumer goods production—and not enough guns. But people like General Electric board chairman Philip D. Reed were contending we were rearming too fast.

• **More Planes**—Then, too, the Chiefs of Staff had revised their ideas on the kind of defense they wanted. They scaled up their original blueprints for all the armed forces, but they particularly wanted a bigger Air Force. Instead of the 95 wings now building, the chiefs called for 140-odd. Virtually all the aircraft would be jet-propelled.

But production of jet engines for 95 wings, along with output of tanks and other items in the present program, was snarled by tool shortages. The tool bottleneck—it won't be broken for another 12 months, at least—already has set back big chunks of the arms buildup by about a year.

From where mobilizer Wilson sits, that makes demands to get more military production by cutting back consumer goods faster more or less pointless. Without more tools, you simply can't chew up any more metal you might take from civilian production.

• **No Slowdown**—On the other hand, Pentagon planners told Truman: We

simply can't risk any slowdown in rearmament; it would endanger security.

So Truman has bought the present mobilization, with another year, more or less, tacked onto its previously scheduled ending in 1953-54.

Don't think there will be plenty of butter—even as much as we are getting now—along with guns from here on through 1954. Rather, there will be progressively less critical materials for consumer goods until the military take hits a peak. That peak probably will come next year, when the services have placed their maximum volume of orders.

There will be more of some types of steel, sheet, and strip later this year as new capacity comes into operation. There'll be more aluminum, but soaring military demands will take most of the 400,000 tons of new capacity coming in this year.

• **Scarce Copper**—The most pressing limitation on civilian production generally will be the shortage of copper. Military needs are taking more and more of available supply. There's no prospect of any increase in supply before 1953-54 and not enough then to bring cheers from any producer of consumer goods. The only answer for makers of civilian items is to switch to aluminum or another substitute—when a substitute becomes available.

As for arms, we're coming into a period of production greater than we

have seen since World War II despite the bottlenecks in military tools and some components. You can see positive signs of that in mobilizer Wilson's report for the last quarter of 1951.

Deliveries of military end items and construction have climbed to a rate of \$2-billion monthly. By year's end the rate will be nearly \$3-billion. That anticipates availability during the year of an increasing volume of hitherto hard-to-get tools and components. And we'll be making fuller use of the tools already on hand.

• **Some Jets**—We'll get guns and other equipment for our land and naval forces in quantity, and we'll also get some jet aircraft. The Air Force has finally frozen designs on some jets. They'll be ordered in quantity to replace obsolete aircraft now in operation and for some of our additional air wings.

But the military is still switching designs and ordering better tools for vastly superior aircraft. It'll take a year or two to build some of the tools and

another year to get planes off them.

By that time the present aluminum expansion program will be complete, about doubling 1950's capacity of 735,000 tons a year. Even that may not be enough, though, and the mobilizers are considering a further round of aluminum expansion.

• **Expansion Curb**—The toll of mounting military production will be paid by most industry as well as consumer goods makers, during the rest of 1952. For that long, at least, there will be very little new plant expansion except that already under way or already approved by controls officials.

That's because the mobilizers believe we have started just about all the industrial expansion we can afford and still maintain arms production. We are already started, however, on a \$2.4-billion steel expansion, a \$200-million aluminum program, a \$500-million aircraft buildup, \$1.2-billion of chemicals expansion, and comparable increases of our petroleum, electric power, and other basic industries.



## It Was a Ship, Not a Derelict—With a Captain

When Capt. Henrik Kurt Carlsen stuck by the floundering Flying Enterprise this week, he wasn't making an emotional gesture. He was trying to save the owners, Isbrandtsen Co., and their insurance underwriters a sum that might run near \$2-million—and maybe line himself up for a handsome reward.

Under maritime law, anybody can salvage an abandoned ship and claim up to half the value of hull and cargo. But as long as the captain is aboard, no one can put a line on without his permission. That means the owners can make a deal for an

ordinary towing job instead of having to take their chances on a salvage award. Shipping men guess that the value of the Flying Enterprise and its cargo will run something like \$4-million; on that basis, the salvage award could have been as much as \$2-million.

Carlsen himself isn't legally entitled to anything for staying with the ship. But Lloyds of London, the underwriters, traditionally make up a generous purse for the captain who saves them a big loss at the risk of his own safety. (United States insurance companies can't do that.)

## TV: Dead Spot?

**New customers are hard to find in saturated big cities. Replacement sales must carry the ball.**

The television industry is closing its 1951 account books with a grim question showing up plainly in the column footings: Are sales reaching the saturation point in the big-city markets?

Manufacturers can talk their way past the bursting of their Christmas dream of big gift sales. There weren't so many Santa Claus sales as they had expected, and widely predicted shortages of brand-name sets didn't materialize. Yet manufacturers were happy over the steady pickup of yearend sales that brought their factory inventories down to a third of last summer's record level.

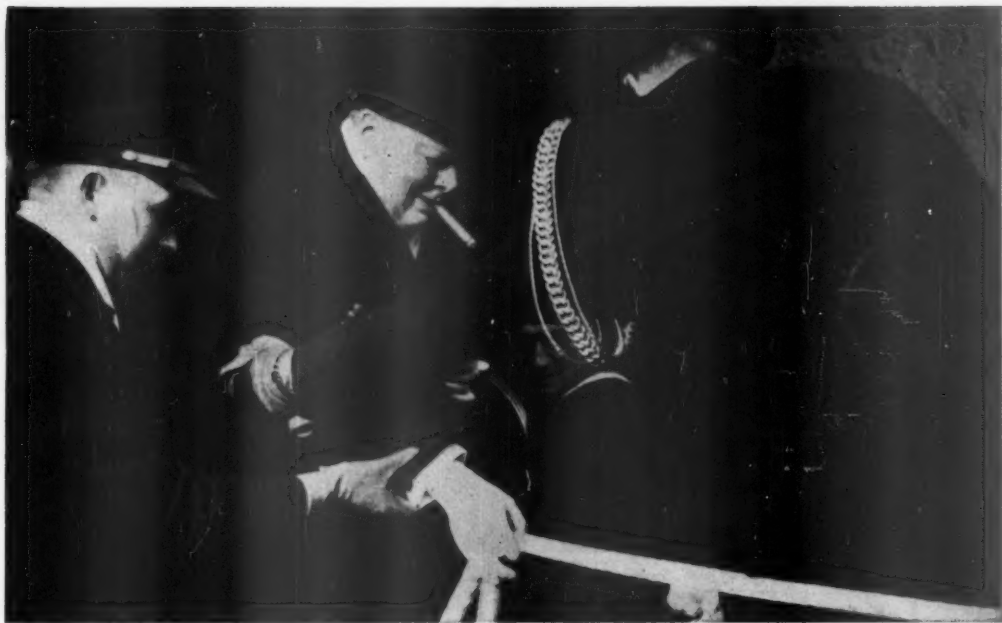
Retailers find it harder to conceal their anxiety. Many of them classified December business both as "poor" and "disappointing." Very likely, it was more disappointing than poor—most retailers had been too ready to accept manufacturers' earlier predictions of a pre-Christmas boom, and they were badly overstocked.

• **Bitter Pill**—The sad fact was that December sales plodded along at the November pace, a slow walk, after trade people had predicted a resumption of the early 1951 boom. And so wholesale and retail inventories still are heavy, retailers are still getting offers of "deals," and distress sales at discounts are still being advertised.

Sales in 1951 totaled 5.2-million sets, compared with 7.5-million in 1950. Estimates of 1952 production range from 4-million to 5-million television sets.

• **Basic Worry**—The trade is whistling past a graveyard when it predicts no trouble in selling the 1952 output. For, deep down, there's a fear that the cream has been skimmed from the market. Many metropolitan areas are 60% to 75% saturated. And whenever FCC melts its freeze on new TV stations, it will open up chiefly marginal areas, smaller markets for receivers.

With the days gone when "everybody's a prospect—nobody has a set," the retailer must make an increasingly strong pitch at the replacement market. Sales may be spurred by recent price cuts by Magnavox and Crosley (BW—Jan. 5 '52, p28) and the introduction of lower-priced lines by Motorola, Philco, and DuMont. On the other hand, General Electric is swinging to 21-in. sets, closing its 17-in. line, and RCA has raised prices on certain sets.



## No Miracles Under Churchill's Hat

Winston Churchill left Washington this week with his famous square hat still on his head. He had not taken it off and passed it, as many people had expected. And President Truman had not made him carry it in his hand as others had predicted.

Nevertheless, the Truman-Churchill meetings turned out a disappointment both to the U.S. and to Britain. They produced agreement on several secondary—though significant—points. They did nothing to remove the major threat to cooperation between the two countries—the threat of economic bankruptcy in Britain.

It's easy to see why this paramount issue was evaded. The Administration is too paralyzed by the coming election to forge any bold new policies. Churchill didn't want to risk a rebuff by making proposals Truman would reject. And chances are that the British government itself is too hard-pressed by the immediate crisis to do much long-range thinking anyway—at least until it has its domestic deflationary moves out of the way.

So the two chiefs of state stuck to details.

- They agreed to 'swap' about a million tons of U.S. steel for British tin and aluminum.

- They O.K.'d some ideas for streamlining NATO's political and economic machinery.

- Churchill promised again to do what he could to support the European army, short of joining it.

- They agreed—at least tentatively—on what to do if the Chinese invade Southeast Asia.

Churchill and Truman also made progress on some other minor issues like the Atlantic Defense Command and the exchange of atomic information. Truman promised not to atom bomb Russia from British bases without British permission.

- **Disagreements**—Still at loggerheads is U.S. and British policy with respect to Red China. Britain won't withdraw recognition of Mao's regime until it's forced to.

The Iranian policies of the big two governments also remain far apart. Churchill and Truman agreed to let the World Bank try to work out a solution. But this doesn't remove the split.

The U.S. thinks the economic issues involved in the oil crisis are secondary to the strategic necessity of keeping the country from going Communist. The British are unwilling to make economic concessions to Mossadegh that might endanger their oil revenues from other parts of the Middle East.

Churchill and Truman failed to dovetail Anglo-American policy on other trouble spots in the Near and Far East. The fact is no common policy

on many of these issues is possible so long as the British economy is floundering from crisis to crisis.

- **Issue**—U.S.-British skirmishing over Japan is a case in point. Britain has been quietly encouraging the Japanese to expand their trade with Red China. Object: to keep the Japs out of Britain's Southeast Asian markets. The U.S., meanwhile, is doing everything it can to wean Japan from its traditional dependence on the Chinese market and to expand Jap trade with Southeast Asia. Sharp words have been exchanged between the State Dept. and the Foreign Office on this issue.

- **No Pet**—It's now clear there must be a radical new Anglo-American approach to British economic problems if the U.S. is to help keep Britain from lurching toward bankruptcy. Each crisis is more serious than the last—each wears away British will to fight on, and each dampens Congressional willingness to vote more stopgap aid.

Perhaps the most important thing Churchill accomplished was to restore some warmth to the dealings between the two countries. The atmosphere surrounding the talks was reminiscent of the cordial, leisurely, frank one of old-fashioned 19th Century diplomatic exchanges.

But real friendship can't be built on charity for long. Nobody, as Churchill said, wants the British lion for a pet.



DEPLETED SCRAP YARD owned by U.S. Steel in Pittsburgh tells the reason why . . .

## Steel Needs a Miracle

**U.S. Steel blames its shutdown of eight furnaces on dwindling scrap supplies. It may be only the beginning, unless nature does a quick about-face.**

Steel production was hurt solely and directly by the critical scrap shortage last week for the first time in history. Chances are that it won't be the last time, though, unless one or two miracles happen.

Those unexpected marvels would be: (1) sudden substitution of springlike weather for the bitter cold winter in the Midwest and (2) uncovering of new and large sources of good-quality scrap.

• **A Blow**—Steel producers and government officials had been yammering for months about the shrinking scrap supplies. Even so, it came as somewhat of a shock last week when U.S. Steel Corp. announced it was closing down indefinitely eight open-hearth furnaces—five in the Pittsburgh area and three at Gary. Severe winter in Chicago has hampered the flow from scrap yards to the mills and delayed movement of loaded cars.

Big Steel's shutting off of eight furnaces may be only the beginning. DPA officials warned that continued cold weather would shut down 50 to 100 furnaces—a loss of 5% to 10% of current production.

• **Not Much Help**—Usually, Big Steel would have a 60-day scrap inventory at this time of year. This week, though, U.S. Steel mills across the nation had

on the average only one or two days' supply. Some other companies were perilously close to furnace shutdowns, too. Scrap piles are reported to be lowest at Cleveland, Warren, Buffalo, Cincinnati, Pittsburgh, and Chicago.

• **Last Ditch**—Robert W. Wolcott, chairman of Lukens Steel Co. and chairman of the steel industry scrap committee, described the situation this week as "desperate." He pointed out that loss of steel from the eight deactivated furnaces is estimated at 2,600 tons a day. That's less than 1% of the industry's current production rate, of course. But the more the shortage builds up, the further distant is the day when steel supply and demand can come into balance.

Steel producers would like nothing better than to see voluntary methods of scrap collection continued, even though the supply pinch is getting more severe. Until it tightens to the breaking point, they cannot go along with the recent suggestion of DPA administrator Manly Fleischmann that the government take over direct control of scrap. However, they have no objections to the government's present practice of reallocating scrap supplies from those with larger supplies to those on the ragged edge.

## Citizen Schering

**U.S. is ready to sell the former German-owned pharmaceutical company seized during World War II.**

The government finally is ready to unload its second-biggest business holding: the Schering Corp., of Bloomfield, N. J.

Sometime in the next three weeks, the Justice Dept. will file a stock-registration statement with the Securities & Exchange Commission. Then, in approximately 60 days, the once-German-controlled pharmaceutical company should finally pass to private American ownership.

The transfer will take place almost 10 years to the day after the U.S. first seized the firm as alien property during World War II. In the decade of government possession, federally appointed management has been operating and expanding the business.

Today Schering is a going concern, a leader in the hormone field and a money maker. Its growth potential is immense: Since April, 1942, its asset value has increased 425%—to around \$13.5-million. Its patent holdings alone are enormously valuable. Small wonder that every rumor of its sale in recent years has evoked a flood of inquiries and offers to buy.

• **Selective Sale**—But buying a business from the government is far more complicated than buying one from private owners. For one thing, sales like these must take place in the spotlight, under competitive bidding. For another, the Justice Dept. carefully checks the eligibility of every customer.

First thing, the government checks the nationality of the bidders: They must be American, with resale to foreigners forbidden. Then Washington wants to know what the purchaser intends to do with the business—that is, will he scrap it, merge it, or continue to operate it. Finally, Justice's Anti-trust Division wants to be sure that the purchaser is not a competitor.

• **No Monopoly**—The department aims to avoid sales to buyers who might thereby gain an unhealthy degree of control over an industry. But it's hard to define a competitor. For example, you can't be certain that sale of Schering to another drug house will lessen competition—especially if there's no duplication of items. Justice will simply have to make some arbitrary "common sense" decisions on who is eligible and who isn't. To lessen the dangers of monopoly, some Schering-owned patents may be transferred to the government—and eventually opened to the

public—before the company is sold.  
**• Step by Step**—Here is the procedure that Schering will be put through in the process of sale:

• Justice will file with SEC an offering of the 440,000 shares it controls (100% of outstanding stock) just as if it were a private seller. After 20 days the registration becomes effective, and the stock is offered to the public.

• Early in the bid period government and Schering officials are available to fill buyers in on details.

• Prospective purchasers must file information as to eligibility two weeks before bids are opened.

• Thirty days after the registration statement becomes effective, bids are opened.

## TWA, Pan Am Jockey For Overseas Routes

Trans World Airlines and Pan American World Airways are at it again. The Civil Aeronautics Board opened hearings this week on how overseas service is to be set up after present certificates expire July 4. TWA proposed a new Asiatic route that would complete a second U.S.-flag round-the-world service. And at the same time TWA sought to bar Pan Am from half of its present European out-lets.

• **Scrap of Paper**—TWA already has a certificate to extend its eastern terminus from Bombay to Shanghai, but the sanction has been worthless since the Reds occupied the Chinese city. TWA wants now to fly a new route between Bombay and Tokyo. It argues that Tokyo, as the new hub of U.S. interests in the Far East, is a more logical terminus, anyway.

At Tokyo, the TWA service from across Europe and Asia would meet the existing trans-Pacific route of Northwest Airlines. This would give globe circlers a choice of lines: Pan Am already operates around the world.

• **Europe**—At the CAB hearings, TWA renewed its charge that Pan Am is more concerned with meeting TWA competition head-on than with extending its own service to noncompetitive areas such as Scandinavia. Both lines now fly to the four principal European gateways: London, Paris, Frankfurt, Rome. TWA proposed, in the name of "area competition," that these routes be split up: London and Frankfurt still to be served by both lines; Paris and Rome by TWA only.

Pan Am said this was no competition at all. Though it formerly opposed any other U.S. line's entry in the international field, Pan Am said competition had been successful and should be continued.

# FIFO vs. LIFO

**1** On Jan. 1, 1951, the Ajax Mousetrap Corp. had 100 units of raw material in inventory at a cost of \$100 per unit.

**1** Same

**2** During 1951, Ajax buys 500 more units of inventory at \$120 each and consumes 500 units.

**2** Same

**3** On Dec. 31, 1951, Ajax has 100 units of raw material on hand at \$120 each.

**3** On Dec. 31, 1951 Ajax has 100 units of raw material on hand at \$100 each.

Dec. 31, 1951  
 $100 \times \$120 = \$12,000$   
 Jan. 1, 1951  
 $100 \times \$100 = \$10,000$   
**\$ 2,000**

**PAPER PROFIT  
 TAXABLE**

Dec. 31, 1951  
 $100 \times \$100 = \$10,000$   
 Jan. 1, 1951  
 $100 \times \$100 = \$10,000$   
**0**

**NO PROFIT  
 NO TAXES**

## Why Companies Are Turning to "LIFO"

Fast-spreading accounting method reshuffles inventory figures so as to lower apparent profits—and cut taxes.

Fifty years ago a businessman measured his profits by what he had in his cash drawer.

Today his profits are (1) what his accountant says they are in a profit statement based on complicated calculations, and (2) minus taxes. With taxes what they are—running up to 70% of gross profits—anything that takes bookkeepers' inflation out of gross profits can save a lot of real money.

This is what makes LIFO—the last-in-first-out method for measuring changes in inventories—popular. LIFO lowers the level of gross profits in times like these, so lowers the tax bill.

That's the consensus among companies that have adopted LIFO within the last two years. A majority of them told BUSINESS WEEK this week that taxes are the big reason for changing over.

• **The Old Way**—Conventional accounting (first-in-first-out, or FIFO) assumes that inventory is processed, or sold, in the order of its acquisition—in other words, that new material, as purchased, is put on the bottom of the pile, and material to be processed or

sold is taken off the top. This means that the material left in inventory at the end of the year is the material that has been bought most recently.

This is fine when prices are steady or fluctuating gently. But if prices have been rising steadily it can cause trouble: In that situation, the unit price of goods in inventory at the end of the business year will be higher than it was at the beginning. So, even if the physical quantity of inventory is unchanged, the dollar value will be higher, and the difference becomes part of the company's profit for the year.

Many accountants felt that allowing fluctuations in inventory value to influence profits was wrong. A basic stock of inventory, they reasoned, is just as much a part of business capital as a company's plant or its machines.

• **LIFO Concept**—The fundamental concept of LIFO is that a certain quantity of stock must always be kept on hand. In the regular course of business, goods are bought, and goods are sold or processed. To find the true cost of operation, they must be thought of

as the same goods; in other words, the cost of goods bought in any month or year should be considered as part of the cost of operations for that month or year.

Thus, LIFO is the opposite of FIFO. It assumes that the last goods bought are the first sold; that new purchases are put on the top of the pile and used immediately, while the bottom of the pile remains unchanged.

• **History**—In 1938 and 1939 Congress passed laws permitting the general use of LIFO. And LIFO began to spread—though slowly at first. For one thing, taxes were not very high in 1939, so an incentive was lacking.

But more important, accountants weren't sure how broadly or narrowly the Treasury would interpret the new law. Obviously, LIFO applied to stocks of raw materials such as coal, or copper, or crude oil, in which every ton or pound or barrel was exactly the same as every other ton or pound or barrel. But companies with inventories of other kinds weren't sure that the government would let them use LIFO.

• **Department Stores**—The most extreme case was the department stores. If a woman's dress in inventory at the end of the year costs more or less than a woman's dress in inventory at the start of the year, who is to say how much of the difference is due to price fluctuation and how much to change in style or quality?

In 1941 the National Retail Dry Goods Assn. set up a series of department-by-department price indexes to answer that question, and many stores shifted to LIFO using those indexes. The Treasury said no, loud and often.

A few department stores defied the Treasury and continued to use LIFO, and, in 1947, the Tax Court upheld them.

• **Picking Up**—Since then the adoption of LIFO has steadily picked up speed. In a 1950 survey of annual reports by the American Institute of Accountants, LIFO was the leading single method of pricing inventory; almost one-third of the companies surveyed used it.

• **Still Good?**—By hindsight, it's easy to see today that it was a very good idea to adopt LIFO in the early 1940's. But is it still a good idea today, in view of the fact that prices have already doubled or tripled since LIFO was first legalized?

BUSINESS WEEK's survey turned up some answers:

• **Taxes**—The most important reason for shifting was the probability of big tax savings. "We made the switch to LIFO," said one rubber company executive, "to take advantage of the tax law in a period of rising prices and rising tax rates." Another rubber company man put it a little differently: "LIFO eliminates big inventory profits

that would require us to pay taxes on millions of dollars we didn't really earn."

• **Spirit Level**—A second major reason was to eliminate fluctuations in reported profits caused entirely by changes in inventory value. A paper manufacturer never even mentioned taxes: "We adopted LIFO," the president said, "because it tends to reduce earnings in a period of inflation and increase them during depressed periods, thereby leveling off peaks and valleys over a period of several years." In its latest annual report, Procter & Gamble, which just adopted LIFO, seconds the motion: "The use of LIFO minimizes the effect of 'inventory profit' during periods of increasing prices and of 'inventory loss' during periods of declining profits."

• **There Are Risks**—Practically every company covered in the BUSINESS WEEK survey agreed that there was some risk in adopting LIFO when prices are as inflated as they are today. If LIFO cuts taxes when prices are rising, it will boost taxes when prices drop.

• **Pessimists**—But this optimism was not shared by most companies. The principal reason why companies in the BUSINESS WEEK survey had not adopted LIFO earlier was the fear of declining prices. Just last month the Hecht Co., headquartered in Baltimore, decided against LIFO for that reason. And even now, having adopted it, many companies are worried about what will happen if prices decline enough so that the market price of their inventory falls below their LIFO cost basis.

For companies using LIFO and other conventional accounting methods, the law sanctions and even encourages use of "lower of cost or market" for pricing inventory. But for LIFO companies, this option is not available.

Most accountants agree that this isn't fair; the "lower of cost or market" is a principle that's necessary to business stability, regardless of how the cost half of the equation is determined.

• **New Law for LIFO?**—Many LIFO companies are certain that, if this country should ever get into another period of sharp deflation, Congress would amend the law to permit them to use the lower of LIFO-cost or market. Just last month a group of accountants and executives of LIFO companies met in Washington with Colin Stam, Chief of Staff of the Congressional Joint Committee on Internal Revenue Taxation, to urge enactment of such a law now.

If it does become law, you can look for a shift to LIFO that will dwarf anything seen so far. "If that bill becomes law," says the controller of a food processing company that so far has ducked LIFO, "we'd jump so fast you wouldn't be able to see our dust."



FLEISCHMANN, DPA boss, set up a . . .

## Finding:

Last fall DPA boss Manly Fleischmann got worried about the nation's electric power expansion program and appointed a four-man committee to study it (BW-Oct.20'51,p24). The committee handed in its report last week.

The gist of what the committee had to say was this: A 40% expansion of U.S. power capacity by 1954—which DPA had planned but was a little leery of—isn't too much for the nation's economy to stand.

Not only that, but the 40% probably won't be enough. The program ought to be enlarged if mobilization is to continue speeding up.

And, too, the program will have to be reshuffled.

Specifically, the report made three points:

• From now on, the power expansion program must get full material requirements—and on time. In the past, the program has been lagging because less essential industries walked away with the necessary machines and raw materials; this, the report says, will have to stop.

• Coastal utilities will have to take a cutback so that inland utilities can be built up.

• Local and regional power curtailments are going to get worse before they get better. The power supply is already strained, and the demand will be several jumps ahead of it for some time to come.

• **Materials**—The power industry has been short of materials ever since mo-



COMMITTEE to study power program: H. Marks, E. Morehouse (chairman), G. O. Wessnauer, R. D. Booth. They reported their . . .

## Electric Expansion Needs a Boost

bilization began to roll. Before Korea, the industry was expanding furiously to meet a combination of civilian and defense needs that had sprung up. Then, when Korea brought a new stepup of defense production, DPA found that electric power expansion was pulling a big share of critical materials away from the armament makers. So Fleischmann cut the power industry's supply. And the expansion program started to slip.

As it stands now, 9.5-million kw. of new capacity are ordered for 1952, another 12.2-million for 1953, and 8.4-million for 1954. That's about 30-million kw. all told—a 40% jump in capacity. Undoubtedly, more will be ordered before the three years are out. But no one—including the committee—is very hopeful that even the 30-million kw. will materialize by 1954. In fact, the committee warns that if the expansion program is allowed to slip much more the country may find itself up against a "chronic" power shortage that could take years to cure and might prevent all-out mobilization.

• **Vicious Circle**—To back up its arguments, the committee worked out a formula to show how a power cut affects the production of steel, copper, and aluminum:

For every percentage point that your reserve power capacity falls below the required minimum at any time in one year, you lose production of five to 10 times as much steel, copper, and aluminum as you would have needed to install the missing 1%.

And the prospect for the next few years, the committee added, is for bigger shortages than just one percentage point.

• **Turbine Trouble**—One indication of the power industry's shortage troubles is the turbine situation:

Normally, turbines are the hardest things to get when there is a squeeze on the supplies of electrical equipment. A turbine is a big hunk of plant; it isn't mass produced, but is built to fit specific individual requirements. So, naturally, when production is strained, turbines tend to be the bottleneck rather than other easier-to-make electrical items such as transformers and switchgear.

Now, however, the situation is reversed. Materials shortages have hit so hard that the power industry is having trouble getting enough auxiliary equipment to go with the turbines it is putting in place. These turbines were largely finished before the shortages became desperate. Some men in the business assert that by next year there will be turbines standing idle—simply because there won't be any transformers or boilers to keep them going.

• **Regional Shuffle**—In addition to recommending a pickup of the expansion program, the committee stressed a second point—the necessity for building up inland utilities.

Washington, for some time, has been determined not to set up much more defense industry on the Atlantic or Pacific coasts. Consequently, a lot of new plant is going to barge into the

area between the Great Lakes and the Gulf of Mexico. And that new plant will need electric power—much more than existing facilities can put out, and possibly much more than anyone expects. The committee estimates that demand by December, 1954, may be 10% bigger than present projections indicate.

To ease the shortage, the committee advised Fleischmann to put the power where the load is going to be—to take materials away from coastal utilities so that the inland ones can start building up.

• **How and When**—If DPA decides to accept the committee's recommendations and goes to work right away, it still won't be able to show any important results until late 1953. Power equipment has a 24- to 36-month lag between the time it's ordered and the time it's finally put to work. All the new capacity that's to go up between now and late 1953, consequently, has already been ordered—and these orders can't easily be stopped or changed unless they are in very early stages.

All DPA can do to hasten deliveries between now and 1953 is to see that materials go where they're needed, and—if possible—to see that other industries don't get to the materials first.

• **Order Boards**—Where DPA can really get its licks in, though, is on the order boards for late 1953 and thereafter:

The thing to do here, the committee says, is to see that most of the new equipment ordered goes to the inland

utilities rather than those on the coasts. Orders placed now will get equipment operating toward the end of 1953 and in 1954. If DPA does its scheduling wisely, the committee thinks that by next year the curtailments will have loosened up some and that by 1954 they will have been eliminated.

• **The Men**—Chairman of the committee is Edward W. Morehouse, vice-president of General Public Utilities Corp. (Morehouse's company is one of the coastal utilities that are going to feel the cutbacks if DPA decides to favor the inland outfits.) His fellow

members are Ralph D. Booth, partner in the Boston consulting firm of Jackson & Moreland; Herbert S. Marks, Washington attorney and World War II power program administrator; and G. O. Wessenauer, TVA's manager for power.

Whether Fleischmann will carry out this committee's recommendations is anyone's guess. He implied general approval by publicizing the report; but apparently he isn't quite satisfied with all the details, for now he's talking of a further study to work out the size of the three-year expansion program.

## Truman Trims His Sails . . .

. . . to the realities of an election year. His message to Congress mentions the old Fair Deal program, but doesn't stress it. Mobilization gets the heavy emphasis.

President Truman's State of the Union message bows to the hard facts of an election year: Congress will do only what is required to keep the mobilization program going—authorize it and pay for it—and to run the routine affairs of government.

That is all the President asked of a recalcitrant Congress on Wednesday. Every action, he said, that Congress takes, or that he takes as President, must be measured against the test of whether it helps to meet the danger presented by the Soviet Union.

• **Spelled Out**—This means that military expenditures, economic and materials controls, and taxes to pay the bill all take priority over Truman's Fair Deal program. Not that Truman did not dish up the Fair Deal again, and some of it in military trappings. But the slight emphasis he placed on his social reforms, and the response Congress made to them, showed clearly they were for the record—for the platform writers in Chicago in July.

In a bland and unexciting message to Congress, Truman split his attention almost 50-50 between world affairs and domestic programs. The message presented no new ideas or prospects. But it did touch upon almost every problem and program of the mobilization and the Fair Deal.

For specifics and details, Congress will have to look to the other messages still to come: The economic message due next week, and particularly the federal budget scheduled for the week after next.

• **Status Quo**—Truman made no real attempt to assert a firmer leadership, or to threaten dire retaliation in November for any failure to carry out his demands.

Basically, his main theme for this year is that we must "drive ahead" on the programs launched last year.

If we do this in '52 and '53, he said, we can be "over the hump" of the rearmament program.

It was perhaps significant, though, that Truman made no reference at all to one hot rearmament fight that's coming to a fairly quick showdown—the Congressional action required to begin the universal military training program enacted "in principle" last year.

Truman went around the world, pointing out the actions taken by the West to counter Soviet expansion and aggression—Korea, Indo-China, Japan, Greece, Turkey, and Europe. Then he balanced that off with the expansion of the U. S. armed forces and back of them the huge expansion of industrial capacity.

• **Abroad**—In international affairs, he wants Congress to:

• Approve the Japanese peace treaty, approve the security pacts with

other Pacific Countries, and bring Greece and Turkey into the North Atlantic Treaty Organization.

• Continue arms and economic aid "in large volume," particularly to Europe.

• Step up arms shipments and Point 4 programs in the Orient—in Indo-China, "which might be hardest hit by some new Communist attack," in India, and elsewhere.

• Expand the Voice of America propaganda effort.

• **Home Front**—On domestic affairs, Truman ran once over—but lightly—most of the mobilization program and even more lightly over the standard Fair Deal legislative recipe he has been offering since 1945.

On the defense program Truman said:

• He would recommend a buildup—in air power particularly.

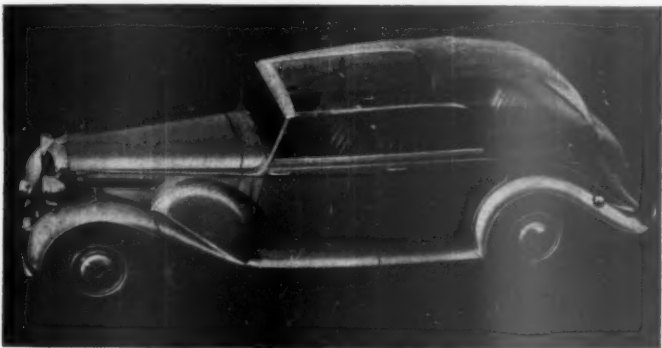
• He expected hard goods deliveries (excluding construction and soft goods) to hit \$3-billion per month by the end of 1952—about twice what they are now.

• "We shall have to hold to a high rate of military output for a year after that"—that is, through calendar 1954 (page 19).

On inflation, Truman calls for a price lid "as tight as the law allows" and wage increases "which are clearly justified under sound stabilization policies." He pleaded for a tighter price control law stripped of the Capehart and Hellog amendments.

On taxes, Truman did not ask specifically for any new tax increase—and there was even a hint that he only hoped for a closing of loopholes and the ironing out of inequities in the present law.

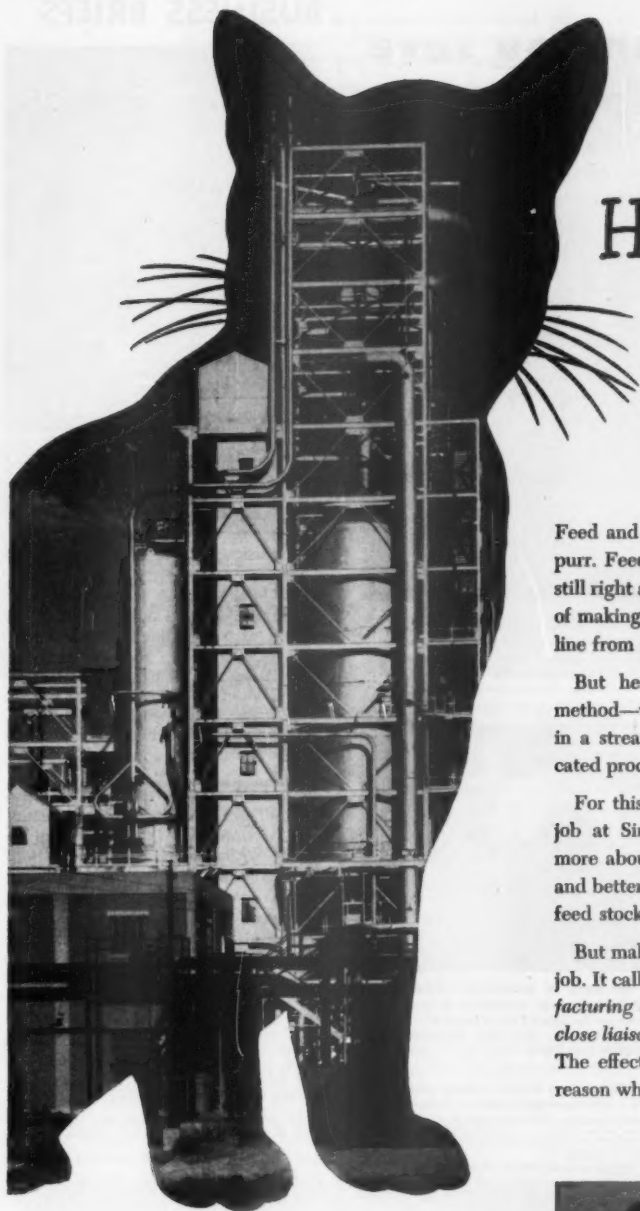
On real Fair Deal measures, Truman said—not too emphatically—he wanted all the things he's asked for before.



## Movable Exhibition Case for Royalty

When Princess Elizabeth and her consort visit Australia and New Zealand this special Daimler will be waiting for them. The

plastic top, tried out on their Canadian tour, proved such a hit that it has been redesigned and improved for the next show.



## How to make a "cat" *purr*

Feed and handle a tabby cat right and she will purr. Feed and handle a fluid catalytic cracking still right and this "cat" will purr too—to the tune of making up to 70 per cent of high octane gasoline from a given quantity of oil.

But here's the rub. The fluid cat-cracking method—which uses a powdered solid circulating in a stream of oil vapor—is a delicate, complicated process.

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But making "cats" purr is more than a research job. It calls for tip-top team work *between manufacturing and research*. Sinclair manages this by *close liaison* between refineries and research staff. The effectiveness of that partnership is another reason why Sinclair is . . . a great name in oil.

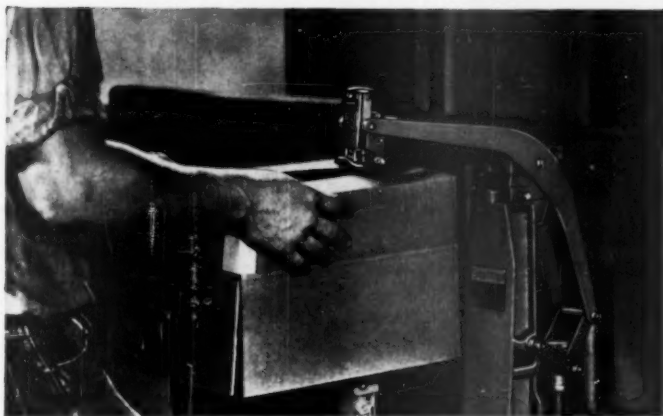
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## BUSINESS BRIEFS



Harry A. McDonald of Detroit is slated to succeed W. Stuart Symington next Tuesday as Reconstruction Finance Corp. administrator. He has been a member of the Securities & Exchange Commission since 1947, chairman since 1949.

Glenn L. Martin Co. is to get an injection of \$32-million in new funds—and some new top management people. Relief for Martin's capital shortage (BW-Dec. 8 '51, p. 21) was worked out by the Navy with Martin, RFC, private banks, and Eastern and Trans World airlines.

More babies were born in 1951 than in any previous year in U. S. history, says Metropolitan Life. The total exceeded 3.9-million, 25,000 or more above the previous record in 1947.

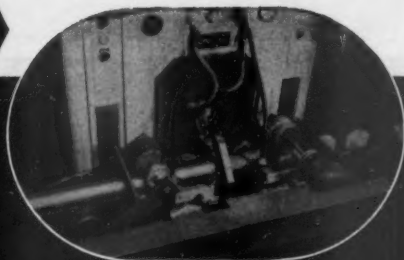
The Army has settled on the lightweight .30-cal. rifle as standard equipment. But it's still buying the World War II Garand because Garand production is already tooled up.

The Dollar group was set back this week in its effort to regain control of the American President Lines, now operated by the government (BW-Oct. 7 '50, p. 42). The Supreme Court refused to dismiss an injunction that continues government control pending final Supreme Court review of the issues.

Lustron's idea for a porcelain enamel, prefabricated house is still alive. At least, Ferro Corp. of Cleveland paid \$10,500 for the dies for wall panels, and Chicago Vitreous Co. bought the dies for roof sections. This saved the dies (original cost: between \$150,000 and \$200,000) from being sold as scrap.

## New Streamlined Production Technique That Saves Both Days and Dollars

50850 steel bars are progressively heated to 350°F at the rate of 900 feet per hour, by a TOCCO Induction Heating patented process.



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**THE PROBLEM**—Axle shaft blanks for famous International Harvester farm tractors are normalized, hardened and drawn in conventional open-fired gas furnaces. Considerable scale is formed by these heating operations which, of course, must be removed. Formerly these heavy bars (85 lbs. each) had to be trucked to tumble mills for cleaning. This took time and money—over \$7000 annually in labor costs alone, not counting heavy maintenance expense on the tumble mills.

**THE SOLUTION**—International Harvester engineers found that by using TOCCO\* Induction Heating to raise bar surface temperature suddenly to 350°F the thermal shock removed the scale cleanly and completely. Bars are now *automatically* fed to descaling unit, *automatically* descaled by TOCCO, and *automatically* ejected onto pallets. The draw furnace operator merely "keeps his eye on" the descaling operation—no separate operator is needed—and best of all, expensive and time-wasting trucking to and from the tumble mills has been eliminated.

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## LABOR



PERSONAL PLEA by president Phil Murray (center) slowed the anger of Steelworkers against the industry. As a result . . .

### Bitter Steel Union O.K.'s Truce, But . . .

Unless there is basic agreement on a new steel contract by Feb. 23, the United Steelworkers of America (CIO) will strike.

- The strike can come before that date if the recommendations of the Wage Stabilization Board satisfy the union, but are rejected by the industry. In 1949, in a similar dispute over pensions, USW struck for 42 days when management rejected fact-finding recommendations that had been O.K.'d by the union. It is ready to do so again.

- If the union doesn't like the WSB terms, it will delay striking until political and public pressures have been brought to bear. It will turn its attention to the White House, seeking to have the recommendations changed in its favor.

- **Bitterness**—That's where the steel situation stands now that the USW has accepted a 45-day truce on the strong personal plea of its president, Philip Murray. The vote could just as easily have gone the other way. Bitter dele-

gates reflected what may well be a post-war low in their relations with the industry.

At USW's two-day convention in Atlantic City last week—which cost the union a cool \$600,000—some 2,400 hastily assembled delegates were spoiling for a fight. They heard angry-worded reports from negotiators on their lack of progress in a month's talks with employers. But they deferred to the plea of Murray to “postpone the effective date of our strike so that the Wage Stabilization Board may consider the steel case promptly on its merits and recommend fair and equitable terms of settlement.”

- **Truman Pledge**—Murray quoted a personal letter to him from President Truman. The President assured Murray and the union that WSB “will consider the case promptly on its merits and make recommendations for a fair and equitable settlement.”

This letter, dated Dec. 31, in effect confirmed what Truman told Murray over the telephone the day before

Christmas: that WSB will consider the case without being limited by its old wage policies and old interpretations (BW—Dec.29'51,p32).

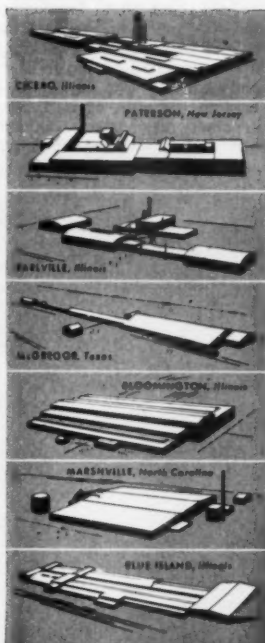
In delaying the strike originally set for Jan. 1, and later deferred until after the special convention, the union stressed that it isn't canceling strike plans. And it warned:

- The postponement will be for a maximum of 45 days only, from the date on which WSB begins hearings. That counts out to Saturday, Feb. 23.

- If recommendations by WSB aren't acceptable to USW, or if industry turns them down, the union will feel free to strike.

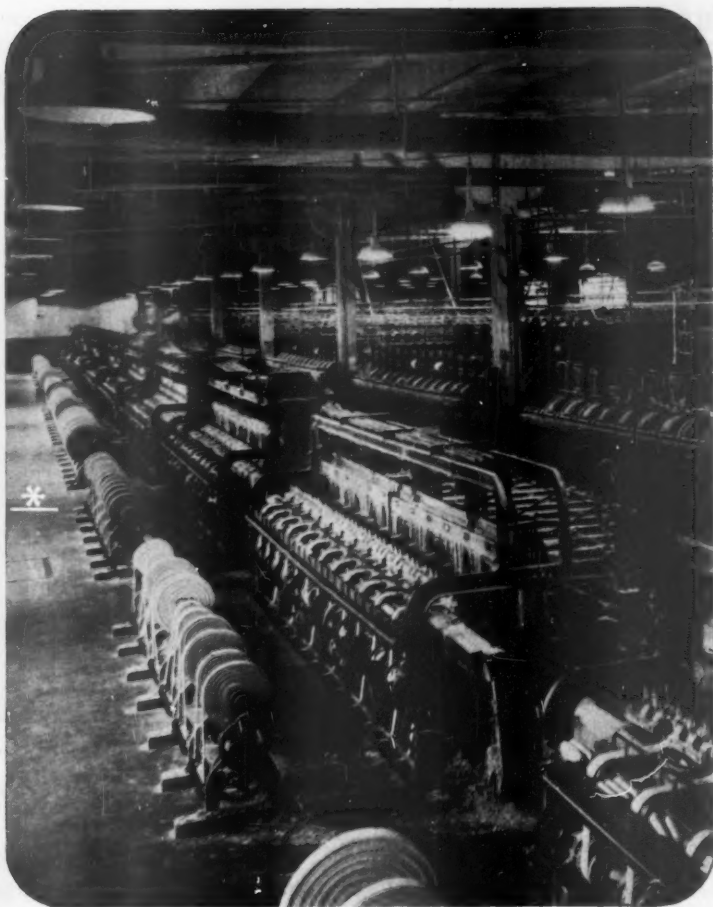
- Any final settlement must be “fully retroactive to Jan. 1, 1952,” the date a new contract should have gone into effect.

- Management must “adhere meticulously . . . to each and every obligation imposed by the now expired contracts” during the 45-day period. If it doesn't, the union will shut down the mill involved in a contract viola-



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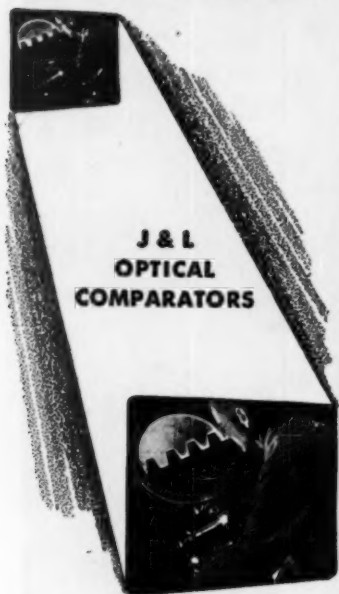
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tion. This is a "sleeper" provision that could upset the no-strike applicart in many mills. Irate steelworkers can look on any common grievance as a contract violation; if they want to walk out to press their position, USW says they can.

The general tone of USW's convention shouldn't be overlooked. The attack on U.S. Steel was one of the bitterest, most intemperate tongue-lashings

given management in many years of union conventions. It came from both top officers and local spokesmen. Granted that much of the name-calling was for effect—a pep-rally technique to whip up rank-and-file fervor—it was still evident that a lot of discontent does exist in the mills of U.S. Steel, and in other major steel companies that have delayed signing 1952 contracts.



IN AND OUT: Choice of Ivar Peterson (left) to succeed James Reynolds (right) means . . .

## Fight Due Over NLRB Spot

Ivar Peterson, Truman's No. 1 choice, is too prolabor for some senators. And management wants someone to stand up for them as outgoing James Reynolds did.

Senators checking into Washington this week before Congress reopened had a question from the White House to answer. They were being canvassed to see if Ivar H. Peterson, President Truman's first choice for a vacant membership on the National Labor Relations Board, would have trouble being confirmed for the post.

Peterson is a familiar figure to many senators. Since 1947 he has been executive assistant to Sen. Wayne Morse of Oregon. Morse engaged him to assist on Taft-Hartley issues. Before that, as trial examiner and later as assistant general counsel for NLRB, Peterson was an expert on the Wagner act and its operation. He was assistant director of the labor relations division of the National Assn. of Broadcasters when Morse hired him.

• **Against T-H**—It was, and is, taken for granted that Peterson shares Morse's antipathy for Taft-Hartley. The likeli-

hood is that he will be cross-examined intensively on that very point.

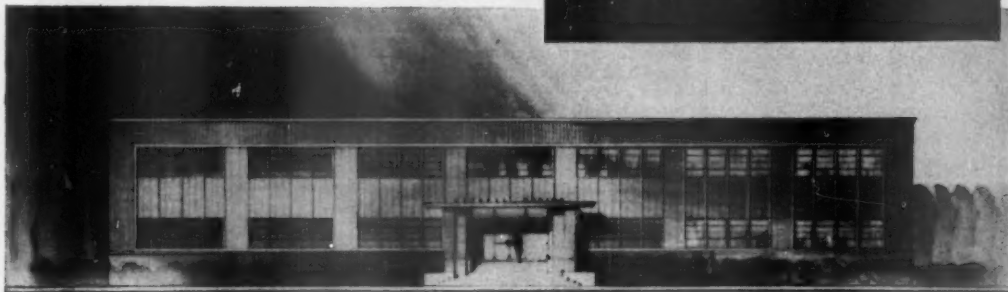
NLRB's former general counsel, Robert Denham, has told the White House that he will appear before the Senate Labor & Education Committee to oppose Peterson's confirmation. Denham said he will accuse Peterson of being "a left-winger and excessively pro-union."

Peterson's friends say this is Denham's personal spleen, that their man is a "middle-of-the-roader," and by no stretch of the imagination pro-Communist. It is taken for granted that, after bitter experience, the White House will have had Peterson carefully checked by the FBI before his name goes to the Hill.

• **Too Pro?**—"Pro-unionism" has never been a disqualification for NLRB membership, even under Taft-Hartley. Both the present law and the predecessor Wagner act declare the encouragement

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Architect's drawing of the proposed front elevation of an administration building in a United States Steel Company plant. U·S·S 17 Stainless Steel will be used in the insulated exterior walls of this two-story structure.

● Here's real news for anyone planning construction of any type of industrial building in the immediate future. You can take advantage now of the economy of Stainless Steel walls and roofs.

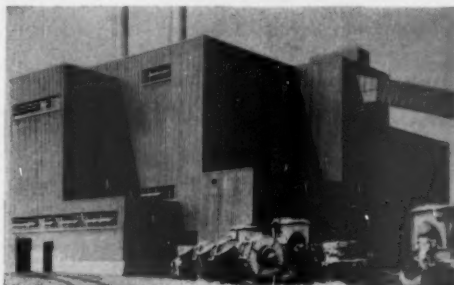
Although some grades of stainless steel are restricted in their use today, U·S·S 12 (Type 410) and U·S·S 17 (Type 430) are readily available for construction applications. These Stainless Steels have proven highly suitable for walls and roofs of industrial buildings. Mill buildings with 12% chromium (Type 410) corrugated roofs, erected as long as 10 to 25 years ago, are still in excellent condition today.

Today, U·S·S 17 is being used for insulated and non-insulated panel walls in power houses, factory office buildings and warehouses. Costwise, Stainless as a building material compares favorably with masonry construction. Compared with other metal materials, original cost may be slightly higher, but long life and low maintenance make the ultimate cost per year far less.

Stainless Steel's added corrosion resistance permits the use of lighter gages, which means reduction in dead load and lighter structural sections. Light weight makes handling and erection easier and more economical, too.

Stainless offers another advantage for buildings that must be erected in winter months. It is an *all-weather* material and erection can proceed without interruption.

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RECENTLY the maintenance engineer of a large hospital experienced a serious case of filter cloggitus. He was having no end of trouble in continuing to supply fresh air to the laboratories. He thought Far-Air® filters might correct the difficulty but hesitated to prescribe them without previous experience with this filter, as the staff of doctors would be highly critical if there were any noticeable decrease in filtering efficiency.

A comparative filter efficiency test was made in the hospital's air conditioning system. It proved that Far-Air filters would operate twice as long between cleanings and with less pressure loss. Also, only two-thirds the number of filters would clean twice as much air—a combined efficiency of better than 4 to 1!

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of self-organization by labor and of collective bargaining to be national policy. Board members have quasi-judicial functions, however, and an "excess" of pro-unionism, like an excess of anything else, could be held to be a major flaw.

Sen. Morse recently called Taft-Hartley an "act of legislative hypocrisy." If it can be demonstrated that this is also Peterson's view, Denham and some business groups seeking to block his appointment may be able to keep him from getting through the Senate.

• **Good Bet**—The betting is that he will make it, however. Sen. Taft is the only man on the Labor Committee who might be willing to tackle Peterson's sponsor, Morse, in a real fight. And he's busy trying to divest himself of the "antilabor" stigma that the unions have pinned on him. If Taft the senator opposed Peterson for being too pro-labor, it could embarrass Taft the Presidential candidate.

• **Dissenter Gone**—The Peterson issue arises because of the resignation of James J. Reynolds, Jr., from NLRB. To employers, Reynolds was the friendliest face among NLRB's five. He was a frequent dissenter in support of management's position.

Reynolds' dissents had a lot of influence when Congress drafted a new labor law. His dissenting views that went into T-H include:

**Free speech:** Reynolds dissented against finding an employer guilty of violating the Wagner act because of an isolated antiunion speech. He couldn't make any headway on the issue within the board, but drafters of T-H heeded his views. They decided that antiunion speeches shouldn't be condemned if they aren't accompanied by threats or lures.

Reynolds also dissented when a majority of NLRB members held that an employer couldn't express a preference between two unions seeking to represent his employees. T-H now permits such a statement.

• **More Effects**—Other questions in which Reynolds' dissenting view went into the present labor law:

**Closed-shop discharge:** Reynolds argued, in the Lewis Meyer & Co. case, that a union should be held responsible for back pay where it unlawfully forces an employer to discharge an employee under a closed- or union-shop contract.

**Gerrymandering:** Reynolds argued, in the Garden State Hosiery Co. case, that the extent of a union's organization of a plant's employees should not be the controlling factor in carving out a bargaining unit.

**Plant guards:** Reynolds argued, in the Monsanto Chemical Co. case, that the union that speaks for production workers should not also represent the plant's protection employees.

## Sylvania Uses Contest to Cut Down Absenteeism

One day recently every employee of the 2,000 at Sylvania Electric Products' plant in Buffalo was on the job. And another day, after an early-season snowstorm, only three employees were absent; one man reported for work on snowshoes.

According to Sylvania, those are only two of the "phenomenal results" of a plantwide contest. Other tangible results, the company says, include a 30% improvement in plant safety; 25% better housekeeping; 6% better attendance—and an all-time low of 1.4% absenteeism over a five-week period; 13% less waste and scrapped work; and 57% better productivity.

• **18 Teams**—Sylvania divided its 2,000 employees into 18 teams, each "coached" by top management men. The plant local of CIO's International Union of Electrical Workers pitched in, too. Stunts and rallies on company time kept teams pepped up. Scoreboards throughout the plant kept workers posted on their standings. Members of the winning teams (two assembly-line teams tied) got prizes.

Sylvania officials in Buffalo were so impressed with the contest results that they have prepared a booklet to tell other employers about it.

## LABOR BRIEFS

**Private ownership** of Chicago gas and electric systems is strongly advocated now by the Chicago Federation of Labor (AFL)—which previously had urged public ownership. Leaders explained the organization is "against nationalization of industry and so opposes this local form of socialism. We are for private enterprise, from top to bottom."

**Stock purchases** have been made by one-fifth of Westinghouse's 112,411 employees under a payroll-deduction purchase plan. In three years, they have bought 385,489 shares of common, spreading payments for each share over a six-month period. They pay \$5 less than the average closing price during the last 20 days of the payment period.

**Special assessment** of \$2 per month for at least three months will create a \$2.5-million "emergency fund" for the United Mine Workers. Effective last week, levy will continue "for the duration of the present agreements" with coal mines. These reopen Apr. 1. UMW says the levy is "to meet forthcoming bargaining developments and to plan for human and union defense."



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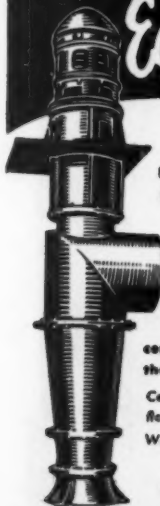
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**NOT A LEDGE TO STAND ON** was provided in design of this Pittsburgh building. Window washers objected, and metal strips were added to sills. At a nearby job . . .

## New Building Techniques

Last week a Pittsburgh building contractor sat back to review his labor record for 1951. He found he had been in the middle of union jurisdictional disputes at the rate of one a week.

His experience is typical of a nationwide situation. As new methods and materials come into use, unions fight for jurisdiction over the new type of work. There's little a contractor can do about it except chalk up lost time and hope for a quick settlement.

The Pittsburgh contractor's experience may be worse than most. At least he thinks so. He calls Pittsburgh the country's "worst" spot for jurisdictional troubles. That's partly because of the bustle of construction in the city's Triangle, partly because of wide use of new techniques and materials.

• **Alcoa Job**—Take, for instance, the new home of the Aluminum Co. of America. When Alcoa planned to build in Pittsburgh, it naturally decided to use as much aluminum as possible. Architects designed a building using specially constructed aluminum paneling for the outer shell. A nice modern

idea, but one that led to labor headaches. Both the Sheet Metal Workers (AFL) and the Structural Iron Workers (AFL) claimed the right to install aluminum panels—something not clearly covered in union jurisdictional rules.

The sheet metal workers claimed they are entitled to all work on metals 10-gauge or lighter—including the 12-gauge aluminum on the Alcoa building. The structural iron workers retorted that the Alcoa job wasn't sheet-metal work but structural work; it's an assembly job, with windows built into the panels.

When the iron workers got the jobs, the sheet metal workers picketed the building—shutting down all work for four days.

The iron workers retaliated by jumping their jurisdiction to work on 16-gauge metal (normally handled by sheet metal workers) on the U.S. Steel-Mellon skyscraper. In retaliation, sheet metal workers picketed that job, too.

The Pittsburgh Building Trades Council (AFL) then suspended the sheet metal local for picketing in a



A PANEL DISCUSSION of union jurisdictions got pretty heated. Sheet metal workers and iron workers fought over who'd install aluminum panels on the Alcoa building.

## Lead to Old Labor Feuds

jurisdictional dispute (it's against an unwritten building-trades union law) and got the rival locals to agree to a truce. They'll share work while the question of jurisdiction over aluminum panels goes to the industry's joint board on jurisdictional disputes.

• **Divide the Work**—The idea of divvying up work is being followed on other buildings in the Pittsburgh area where stainless steel is used with stone.

Facings on three Equitable skyscrapers in the Point Park area are stainless steel, backed by four to eight inches of concrete. Sheet metal workers, iron workers, and stone masons all claimed jurisdiction—but worked out a compromise settlement, dividing the jobs. Sheet metal workers fabricate the stainless steel sheets and straighten out rough edges. Iron workers hoist finished panels into position. Stone masons attach them. It takes extra workers—but contractors avoid jurisdictional tangles.

• **No Ledges**—Other innovations cause similar problems. For example, the modern structural design of the U.S.

Steel-Mellon tower almost eliminated window ledges. The Building Service Employees International Union (AFL), which represents window cleaners, took a look and protested. There'd be no window washing, it said, until "safe" ledges were added.

To meet this union demand, metal strips had to be welded on at the base of each window. Sheet metal workers and iron workers both claimed jurisdiction. After some squabbling, they agreed to share the work equally—but only because the job had to be completed fast and neither union alone could provide enough workers to get it done.

• **Who Fastens Tiles?**—A whole series of disputes in the Pittsburgh area stems from a new trend toward noise-deadening acoustical ceilings. On one building job where tiles were used, carpenters, plasterers, and bricklayers got into an argument about which group should fasten the tiles. They finally agreed to let the carpenters put half the tiles on, and the plasterers and bricklayers one-fourth each.

On the Alcoa building, plans speci-

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# Rockwell Report



by W. F. ROCKWELL, JR.  
President  
Rockwell Manufacturing Company

THE MANAGEMENT OF A GROWING BUSINESS is more and more a group proposition. Today's complex laws, taxes, engineering and research developments, raw material restrictions and other problems have made business specialization almost a necessity.

For instance, in the Rockwell Manufacturing Company, major decisions are made by one or another of several management committees. A case in point is our Products Committee. Members are the top staff men in the engineering, finance, operating, sales and market research departments, together with a representative plant manager.

All new products, product development programs, even requests for new products are reviewed by this group. Market research asks, is there a need? Engineering wants to know is the design sound? Finance says, can it be built profitably? Sales looks at the distribution pattern. Operations and the plant manager want to know if facilities are now available or what equipment will we have to acquire?

Screened by such a committee a new product, if approved, stands a good chance of success, but a group like this is far more valuable to management as a creative unit than as a check, for in the process of looking at a development program the committee frequently comes up with another product or need with even broader possibilities than the one it set out to analyze.

Many industries use a half dozen or more Rockwell-made products. A single sulphur plant in the Gulf Coast area has our water meters on flooding lines, Nordstrom valves on process lines, Edward valves in the power plant, regulators and orifice meters on gas lines, and Delta tools in the maintenance shop.

Quick case histories of production savings through uses of Rockwell-built Delta power tools: The Judge Neon Sign Company, Albany, N.Y., used to rivet metal letters on signs; now, a Delta spot welder eliminates rivets and cuts production time over 50%. . . . Albert Specialty Co., Chicago, drills, counter-sinks and taps six holes in the end of each tripod tube it makes on a combination Delta drill press; tubings and castings are drilled simultaneously making tripods interchangeable and doubling production from earlier single-operation method. . . . Ohio Brass Company, Mansfield, O., eliminated scrap in drilling and reaming forged aluminum blanks for fuse components by installing Delta drill presses in sequence with automatic stops on the table for quick, accurate positioning. . . . Acro Manufacturing Co., Columbus, O., in drilling holes in small switches to .004 in., plus or minus .0005 in., formerly used two operations, drilling from either side; with Delta super-high speed drill presses the operation can be completed from one side with reduced scrap.

Recently at a convention, one customer with whom we had done business for some time, expressed surprise that so many of our executives were so young. Another customer said he was surprised to find that in such a young company so many officers had been around so long. The answer, of course, is that as Rockwell Manufacturing Company has grown and other companies have affiliated with us, we have become a young and old company at one and the same time. Many of our divisions have been in business for over 50 years and their key executives have years of experience behind them. In other cases, we have acquired young companies or started new divisions, often headed by enthusiastic and visionary young men. The result, we think, gives nice balance to our management group.

One of a series of informal reports on the operations and growth of the  
**ROCKWELL MANUFACTURING COMPANY**  
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for its customers, suppliers, employees, stockholders and friends.



**"... most of the unions have  
—or are convinced they have  
—a logical claim to a disputed job..."**

**OLD LABOR FEUDS** starts on p. 36

fied a metal acoustical ceiling, so sheet metal workers and carpenters rowed about the installation job.

• **Mirrors a Problem**—Similarly, pipefitters and glaziers caused a labor problem at the U.S. Steel-Mellon building with a dispute over who should install metal mirrors in washrooms. The pipefitters claimed the job because their union has jurisdiction over the installation of bathroom fixtures. The glaziers said they should get jurisdiction because they're entitled to all glass and mirror work—and a mirror is a mirror even when it's made of metal.

• **Free-for-All**—The trouble is most of the unions have—or are convinced they have—a logical claim to a disputed job. It's the case of the electric pump all over again.

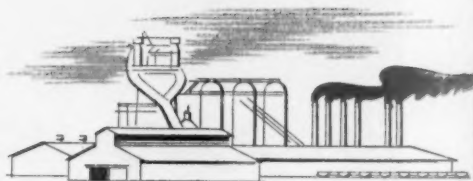
Nobody has ever questioned the right of a plumber to install a pump, or of an electrician to install an electric motor. But when you combine a pump and a motor, who gets the job? Plumbers and electricians are still arguing.

On the U.S. Steel-Mellon tower, electricians installed a set of ventilator fans in a transformer room. The fans were already operating when the sheet metal workers found that a metal vent had been put in by electricians. They demanded that the contractor vank out the completed work and let the sheet metal workers do it over again. The contractor wouldn't, and a short strike followed. The joint board on jurisdictional disputes now has the case.

Carpenters raised a row on another job because a structural steel contractor erected a prefabricated metal tool shed instead of letting carpenters build a wooden one. Iron workers and plumbers feuded over which should install a metal rubbish chute. The iron workers claimed, successfully, that they should get the metalworking job, though plumbers called the chute a "pipe" that they should put in.

• **Precedents Mean Little**—At some time or other, practically all of these disputes wind up in the joint board on jurisdictional disputes. Decisions assign the right to disputed jobs. Theoretically, that settles the disputes.

Usually, though, it doesn't. Pittsburgh contractors complain that men on the job either don't know about decisions of the joint board—or else ignore them. As long as borderline jobs are involved, on-the-spot workers grab for them. And before union higher-ups can intervene, work often stops.



## They did

The way this steel mill operator\* licked his production problem spells out an answer for every executive who is trying to produce more. His problem was acute because he needed more production from the basic physical facilities he already had. Yet he could ill afford lengthy shutdown time.

## what

So he asked Westinghouse engineers for help on a complete tandem mill drive . . . not just a quotation on devices. His staff and ours worked out an application of many devices—motors, controls, motor generators—to let him produce more with what he had. Result: production of this tandem mill was doubled, and the complete change-over made in 66 hours!

## you can do

This case history carries a clear meaning for every industry, every manufacturing process. It says you solve capacity problems by applying capacity thinking. We want to do this kind of thinking with you and your engineer.

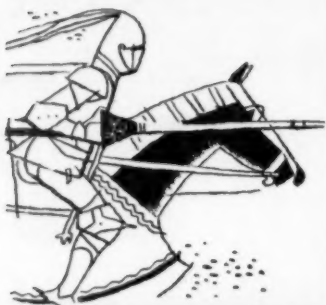
## to produce more

You can choose the actual devices later. It's how you put them together that counts—whether meters, relays, generators, switchgear or welders. Many manufacturers make good electrical devices. Westinghouse, in fact, makes a broader line than anyone else. But the priceless ingredient Westinghouse offers you, in addition, is the skill of broadly experienced engineers in putting together the right combination of good devices to let you produce more with what you have. Westinghouse Electric Corporation, Pittsburgh, Pennsylvania.

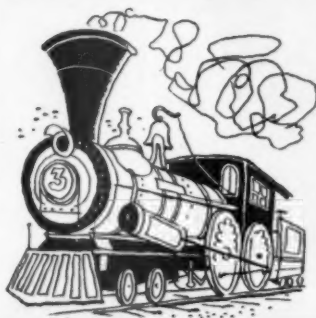
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# PRODUCTION



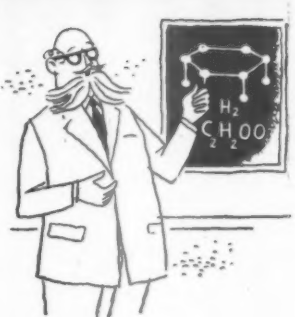
**1** When knighthood was in bloom, the blacksmith armorer could readily fashion weapons from the irons of his day.



**2** In the last century, the inventor-mechanic applied backroom tinkering and experimentation to create new mechanical devices.



**3** Today, the complexity of jet engines and the A-bomb needs the long-haired scientist's knowledge of the basic nature of things.



## Why Industry Lures Pure Scientists

Once there was an Arab sheik who was smart enough to leave his estate in good order before he died. When he passed on to the great Allah, his three sons found the old man had split up his flock of 17 camels among them in this way: one-half to the first son, one-third to the second son, and one-ninth to the third son.

It wasn't possible to divide the inheritance that way—not and come out with usable camels. So the oldest son suggested he add one of his own camels to the 17 to make the deal possible. That made 18 camels. The oldest son took his one-half, or nine. The second offspring then got his one-third share, or six camels. And son No. 3 received one-ninth, or two. That totaled 17 and the oldest son took back the eighteenth, which he had initially tossed in.

"That eighteenth camel was the cata-

lyst for the transaction," says Dr. E. R. Weidlein, president of the Mellon Institute of Industrial Research. "It made the transaction possible, but never actually entered into it. It's easy to see how the camel did its job, but chemists are mystified on the workings of a catalyst in a chemical reaction."

• **Siren Song**—Because of scientific blindspots like these, industry has become enamored of the pure scientists.

Since World War II the man who delves into what makes nature tick has been serenaded with fancy industrial siren songs—fat pay checks and the latest in lab facilities. Such Ph.D.'s as theoretical physicists, mathematicians, physical chemists, and nuclear scientists are as common as Bunsen burners in the industrial research centers.

• **What, Not Why**—The change is part of the gradually emerging new pattern

of American industrial technology. In the past, industrial researchers—as distinguished from long-hairs—concentrated on improving products. They worked by the rule book of existing knowledge; they were content, if things happened, to be ignorant of the essential reason for the happening.

That's no longer enough. Last week any observer heading home from the Philadelphia meeting of the American Association for the Advancement of Science had that trend clearly in mind. In Philadelphia both theorists and the men who produce gadgets to make a buck discussed the factors that are cementing the marriage of industry and science.

• **Technology** has exhausted the existing canon of knowledge both experimental and theoretical. From now on pure science is needed to unlock

the door to newer and better products.

- The complexity of modern machines adds to the industrial engineer's woes. Jet engines need metals stronger than man has ever made before. Nuclear and atomic reactions produce radioactivity and must have metals with peculiar characteristics to contain it.

- Europe is petering out as a fountain of pure science. War and political upheaval have driven out the best scientific brains and have sapped the incentive of those who remain.

- The U.S. is rapidly becoming a have-not nation, increasingly dependent on foreign countries for raw materials. New methods must be found to stretch the materials that we do have.

The old-type industrial research rarely went deep enough to solve problems like these. Its aims were practical and immediate, the quick improvement of a given product. Not so the pure scientist. He's concerned with the basic nature of things—with why a carbon atom hooks up to two oxygen atoms in a chemical reaction, or how the nuclear forces between molecules change when a piece of metal breaks. He hunts for the explanation of nature's behavior, driven by sheer curiosity and the pleasure of finding out "why."

- **Insight**—That curiosity is, just what the manufacturer needs today. He, too, realizes that he must gain some insight into the fundamental nature of metals, chemicals, and electronics in order to hold a competitive edge.

Till recently, engineering design formulas were largely an accumulation of experience, though they did contain a good deal of theory and dogma. The engineer knows that certain steel will never fail if he doesn't subject it to a tension of more than 50,000 psi. He knows, too, that certain shapes are better than others in iron castings. So he follows the teachings of cut-and-try experiments and builds up a pattern of practice.

It's not that engineering design is unscientific in approach. But stripped of its mathematical wrappings, it gets down to a cook book or rule-of-thumb base.

- **Inventor**—The mind of the inventor at work has characterized American technology. Take the auto industry. If an engineer devises a new car suspension, he'll build a few, bust them on a test machine to find the design's weaknesses, and beef it up where needed. Then he'll put his suspension through its paces on a car in road tests. When all the bugs are out of it, it goes into production.

This engineer needs only one objec-



## DAYLIGHT IN AN OCEAN OF DARKNESS

Wresting this Mid-Pacific airfield from the grip of the jungle presented many problems. But lighting it to an overall, uniform intensity without obstructing runway approaches seemed almost impossible—until the contractor consulted Graybar.

Within hours—at an office thousands of miles away—Graybar

Lighting Specialists tackled the job.

Complete electrical installation plans were worked out... 91 tons of vital materials were assembled and shipped along with the blueprints and drawings needed to install them.

A few short weeks later, aircraft were landing round-the-clock at a new Pacific outpost.

- Graybar—independent distributor of 100,000 electrical items—offers you important aids to efficient job planning.

Our nation-wide warehouse system permits day-by-day check on the over-all supply picture—helps you anticipate and forestall shortages before they occur. Subject to defense priorities and regulations,

you can order from your local Graybar Representative *everything electrical* for industry, power transmission, transportation, communication, or construction.

Graybar Specialists in all of the major electrical fields can help you solve technical problems, help procure—or suggest alternates—for electrical items in short supply.



### Send for this helpful booklet

This 26-page booklet explains Graybar's services and procurement facilities for aiding you in plant expansion and conversion. Write for your copy today. Graybar Electric Co., Inc. Executive Offices: Graybar Building, New York 17, N. Y.

134-23

avoid electrical delays—  
plan ahead.

via  
**GraybaR**

IN OVER 100 PRINCIPAL CITIES



# Only FOAMGLAS

*gives you all these advantages*

**FOAMGLAS** is the only insulating material composed of millions of tiny glass bubbles containing still air. Still air is the world's best practical insulation. And glass, in this cellular form, has exceptionally high resistance to many elements that cause other insulating materials to deteriorate.

That is why **FOAMGLAS**, the only cellular glass insulating material, is such an effective, long lasting, economical insulation.

The eight features mentioned above are the main reasons for the rapidly increasing use of **FOAMGLAS** in walls and ceilings, on roofs and under floors in all sorts of structures, as well as on hot and cold pipe lines and process equipment.

When next you figure on insulation, be sure to get all the advantages you enjoy only with **FOAMGLAS**. Send the coupon for sample and informative booklets.

Pittsburgh Corning Corporation  
 Dept. L-12, 307 Fourth Avenue, Pittsburgh 22, Pa.  
 Please send me without obligation a sample of **FOAMGLAS** and your **FREE** booklets on the use of **FOAMGLAS** for: Normal Temperature Commercial, Industrial and Public Buildings ☐ Refrigerated Structures ☐ Piping and Process Equipment ☐

Name.....  
 Address.....  
 City..... State.....

**PITTSBURGH CORNING CORPORATION • PITTSBURGH 22, PA.**

**"... Metallurgical black magic is falling short of giving the engineer the metals he wants ..."**

**PURE SCIENTISTS begins on p. 40**

tive—to make his creation work. If he has done that, and the suspension is cheap to fabricate, he has served his employer well. It makes no difference whether he knows what happened to the atoms every time the spring flexed.

What's more, in the past metals were more than adequate in strength and other properties. Go way back to the steam engine, printing press, and the steam generator: You find the metallurgy was way ahead of the inventor. Metals on hand were always good enough to satisfy the toughest needs of new mechanical devices. Even when the airplane came along, aluminum and steel of adequate properties were around.

• **Keeping Ahead**—Just to make sure that he kept ahead of the engineering game, the metallurgist continued to practice his experimental alchemy, seeking to squeeze a little more strength, a little greater heat resistance from his material. He would try adding a pinch or two of carbon, a bit of chromium, and a little more nickel to his steel mix. The production man helped the cause by varying the heat treatment—trying a slightly different gaseous atmosphere or varying the furnace temperature.

It's no longer enough. The engineer is finding he can run some of his gadgets in a test lab and redesign them until he's blue in the face. They won't stand up. Metallurgical black magic is falling short of giving the engineer the metals he wants. Thus jet engines put terrific stresses on metals and throw out heat and corrosive gases that tenderize the toughest steels and alloys.

Auto engines are going to higher and higher compression ratios. That takes sturdier engine parts, better fuels and lubricants. The electronics and communications industry has just about run out of its basic raw material—the frequency spectrum. It must find out how to send more messages on a given channel, how to transmit efficiently at higher frequencies.

• **Shortages**—Then there's our shrinking supply of raw materials—copper, petroleum, iron ore. Maybe engineers have been wasting them, not getting the most out of their properties.

Industrialists are pretty well convinced that hiring scientists to do pure research will pay off, even though the work has no direct tie-in with the company's product line. Dr. W. F. G. Swann, director of the Bartol Research

# THE BEST LOCATION IN THE NATION



## Fast-Growing Chemical Industry develops New "Chemical Shore"

HERE ON LAKE ERIE'S southern shore, in the Cleveland-Northeast Ohio area, leading chemical companies have committed over \$150,000,000 for expansion since 1945.

**UNLIMITED FRESH WATER**, nearness to vital materials and markets, *plus a growing base of related chemical suppliers and producers*, make the long-term outlook increasingly attractive for the chemical industry here.

**FORWARD-LOOKING EXECUTIVES** are invited to use our free, confidential Location Engineering Service for more information about "The Best Location in the Nation." Our primary interest is in the continued sound economic development of the area we serve. We're looking years ahead, to help you with your future planning.

Phone, or write, Development Department

### Check These Advantages!

Only the Cleveland-Northeast Ohio area, *the best location in the nation*, offers industry this superior combination of long-term advantages:

- At the Market Center of America with 81,000,000 people within 500 miles.
- Superlative transportation by land, water and air.
- Electric power at low rates.
- Productive workers.
- Many producers of parts, materials and supplies.
- Basic materials right at hand.
- Ample financial services.
- Complete business and industrial services.
- Favorable tax structure (no state income tax).
- Diversified industries to supply and be supplied.
- Unlimited fresh water supply.
- Desirable plants and plant sites.
- Excellent living and cultural environment.

#### WRITE FOR FREE REPORT

Write today for special report covering your specific plant location problems. Furnished free on request.



**THE CLEVELAND ELECTRIC ILLUMINATING COMPANY**

77 PUBLIC SQUARE

CHerry 1-4200

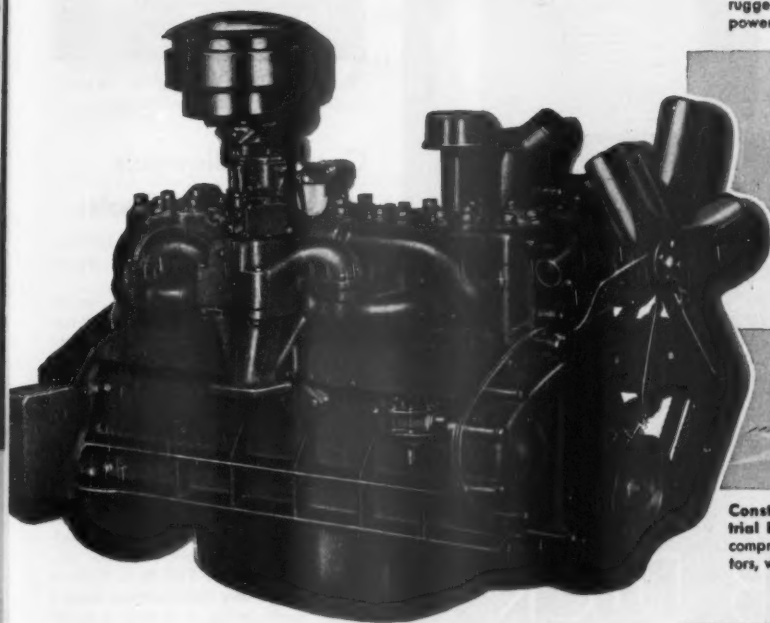
CLEVELAND 1, OHIO



# FAVORED POWER PLANT

...For Original Equipment

...For On-The-Job Applications



Your power needs are served better by dependable Chrysler Industrial Engines

Wherever there is need for a truly superior gasoline power plant, designers and operators alike specify Chrysler. For this high speed, high compression Industrial Engine is engineered specifically to your needs. Compact, clean design makes it easy to install, easier to service.

Feature after feature give the manufacturers and on-the-job operators performance records unequalled by other industrial

engines. They operate day in, day out with little attention, practically no down time.

A trained staff of industrial power engineers at Chrysler travel the field constantly; finding ways to improve their product—helping solve unusual power problems.

When you have a power problem, see your Chrysler Industrial Engine Dealer or write: Industrial Engine Division, Chrysler Corporation, Detroit 31, Michigan.



Operators specify Chrysler Industrial Engines because they are more dependable under extreme loads; offer smooth operating power, serve with less down time—are easily serviced.



Industrial Equipment users specify Chrysler Industrial Engines because they are longer lived, ruggedly built, and they can standardize their power needs with variations of the basic engine.



Agricultural users specify Chrysler Industrial Engines because they are economical, compact, powerful. They are engineered to take hard usage and weather without breakdown.



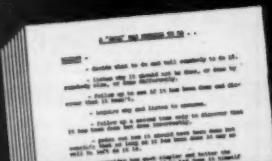
Construction people specify Chrysler Industrial Engines because they are high speed, high compression engines—operate pumps, generators, welders at high output, lower operating cost.

## CHRYSLER

### Industrial Engines and Power Units



HORSEPOWER WITH A PEDIGREE



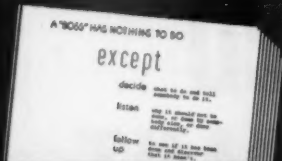
... typed?



... with line drawing added?



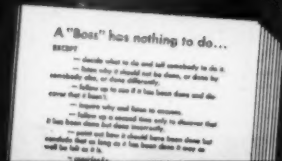
... with color added?



... with lettering?



... with shading too?



... in printer's type faces?

## How do you like your copies?

On many different kinds of paper and card stocks? In a variety of sizes ranging from 3" x 5" to 9" x 16"? Duplicated on both sides of the paper? In rich black or even several colors duplicated at one time?

Do you like your copies duplicated at speeds up to 180 a minute, with new ease of operation, and low over-all cost?

If you do, you'll want to know about MODERN mimeographing, the process that gives you "Balanced Duplicating." Send the coupon below for a free portfolio of samples. A. B. Dick® mimeograph products are for use with all makes of suitable stencil duplicating products.



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A. B. DICK COMPANY, Dept. BW-152  
5700 W. Touhy Avenue, Chicago 31, Illinois

Without obligation, please send me free portfolio of MODERN mimeographing samples.

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CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



GAS WELL VERSION of the charge is similar to the military counterpart.

## Gas Well Blowouts Without Losing Tools

If you want to bore a hole fast but not fancy, take a look at the shaped charge of the bazooka.

The armed forces use it in combat to pierce tank armor. Republic Steel Corp. (BW-Apr.28'51,p50) tapped an open-hearth furnace for the first time last spring with a modification of the charge made by du Pont's explosives department. Now it has found another practical use in the natural-gas industry. Well drilling in a high-pressure gas field has long posed one problem to the industry. When a nitroglycerine charge or a drilling bit pierces the cap rock of a gas sand, the high-pressure gas suddenly released sometimes ruins the job.

• **Time Bomb**—New York State Natural Gas Corp. got the idea that the shaped charge could bring in a well without jeopardizing expensive tools. It huddled with Schlumberger Well Drilling Corp. and Atlas Powder Co. and worked out a 100-lb. charge that has a bronze head.

Actually, the charge is a time bomb, equipped with two watches that trigger the explosive when it has reached the right depth. The bronze head, backed up by the explosive charge, pierces 4 ft. of cap rock, enough to open up the average well.

The potential savings from using the charge are about \$10,000 per well. That estimate is based on the possible loss of gear that might result from ordinary drilling methods.

# 12 QUESTIONS MOST OFTEN ASKED BY TOP MANAGEMENT

## ...ABOUT PLASTICS

You'll want these authoritative answers to the questions you're probably asking about plastics today—

With so much present-day emphasis on product improvement and increased production efficiency, you... like many other manufacturers... may be looking to plastics for the solution to some of your problems.

If so, you'll want the answers to questions like these: "What plant operations will plastics help me short cut?"... "What is 'one-shot' molding?"... "Are plastics available?"... and many others.

Monsanto has just compiled a report covering the twelve questions most frequently asked by business management with answers from the Monsanto Technical Council—a board of ten technical experts whose experience blankets the plastics field. Published in compact, easy-to-read form, this report is available to you. For your free copy, send the handy coupon.

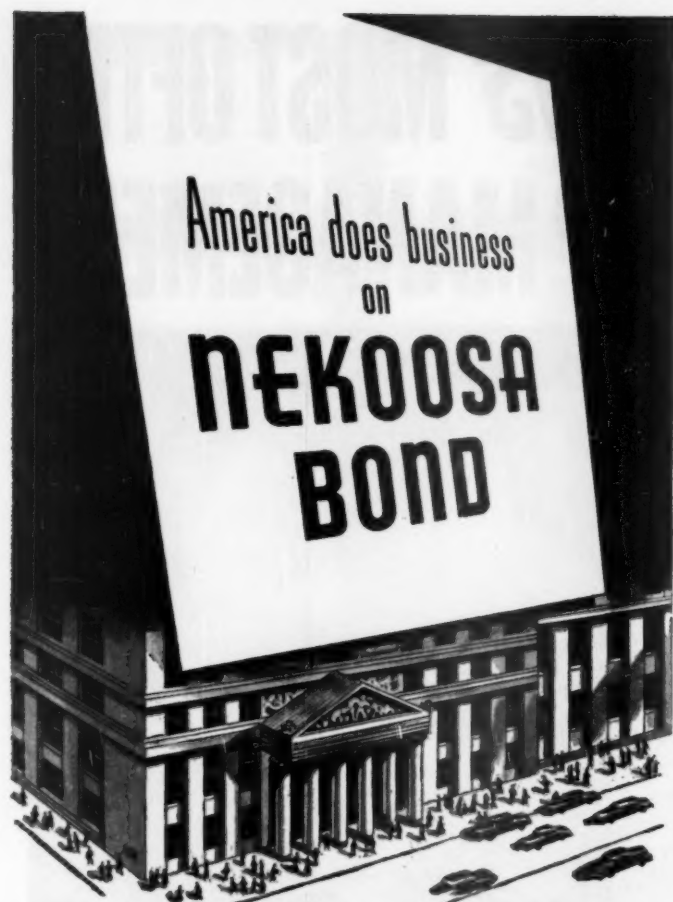


*Free*—Report to Management:  
"The 12 Questions Most Frequently Asked  
About Plastics"—with the Technical  
Council's authoritative answers.



SERVING INDUSTRY... WHICH SERVES MARKETING

• • • • •  
• MONSANTO CHEMICAL COMPANY, Plastics Division, •  
• Room 1208, Springfield 2, Mass. •  
• Please send me your report, "The 12 Questions Most Frequently Asked •  
• About Plastics" and the Technical Council's answers. •  
• Name & Title \_\_\_\_\_ •  
• Company \_\_\_\_\_ •  
• Address \_\_\_\_\_ •  
• City, Zone, State \_\_\_\_\_ •  
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**Because Nekoosa Bond is pre-tested for strength, appearance and finish, it is a better paper to work with and the best paper to work on. Your printer will be glad to show you samples—for letterheads and for most of your other office forms.**

IT PAYS TO PLAN

WITH YOUR PRINTER

**BOND**  
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 MADE IN U.S.A.

NEKOOSA-EDWARDS PAPER CO. • PORT EDWARDS, WISCONSIN

## Cool Tools

**They last longer at high speeds with a new additive for cutting fluids. That saves down-time.**

Production men are pushing machine tools to faster cutting speeds to squeeze more parts per hour out of their equipment. But when they speed up their cutting, too, they dull them more quickly. And that means more frequent machine stoppage and more lost time to replace worn tools. So anything that makes a cutting tool last longer boosts productivity.

The Metalloid Corp. of Huntington, Ind., claims its new additive for cutting fluids called Oilcut X-20 will lengthen the lives of tools. In one case it helped a thread-chasing tool to last 19 times as long as it had before. In a deep-hole boring operation, feed was boosted and surface speed more than doubled, yet the tool lasted five times longer with the X-20 agent than without it.

• **Beats Heat**—Metalloid says its product does the job because it tackles the problem of tool longevity at its source. It licks the cutting tool's worst enemy, the heat that's generated in removing a chip from the work piece. The additive is suited to a variety of machining operations such as turning, broaching, drilling, milling, and tapping.

The function of cutting fluids is to remove heat from the cutting zone as quickly as possible. If heat builds up too far, the tool loses its temper and its cutting edge is soon dulled. The X-20 additive gives the fluid an additional quality: It actually reduces the generation of heat.

• **Why the Heat?**—Heat in metal cutting comes from what engineers call plastic deformation. If you try to break a paper clip, you have to bend it about 10 times before it'll snap. You'll find the point of break quite warm. That's from the heat built up from plastic deformation of the paper clip. But if you bend a brittle piece of wire that snaps with the first flex, you won't feel any heat buildup at the rupture.

Oilcut X-20 makes the surface of the work piece brittle just before the tool cuts it. Then the chips snap off without so much heat. It works much like the hardening effect from carburizing or heat-treating. The additive in the cutting fluid releases individual atoms of carbon, nitrogen, and chlorine, which react with the freshly exposed metal at the point of cut. It makes the metal surface brittle for each succeeding cut. This crystallization cuts down plastic deformation.

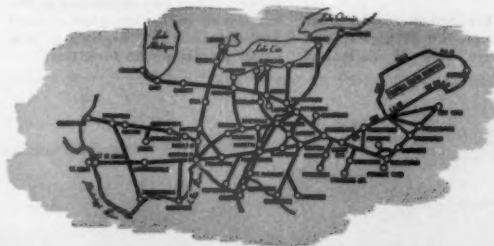


## NOW YOU CAN DO THINGS, MR. SHIPPER!



No longer are your hands tied by not knowing your car's whereabouts. Through B&O's *Automatic Records*, a vital part of Sentinel Service, shippers and receivers are informed when the schedule of a Sentinel car is interrupted—and again when it resumes movement.

Siding-to-siding dependability plus *Automatic Records* makes Sentinel Service a lifesaver. It is available, on carload freight, to on-line and off-line shippers. Let it ease your production and distribution problems. Ask our man!



# BALTIMORE & OHIO RAILROAD

Constantly doing things — better!

## Summertime Dirtmover

### plows roads fast after Wisconsin snows



Rusk County Highway Dept., Ladysmith, Wisconsin, keeps this 7-yd. D Tournapull busy the year 'round. During the dirtmoving season, it works on road construction jobs. In winter, equipped with a LeTourneau 9' V-Flow (as illustrated) it speeds county-wide snow removal. Here's a report from County Highway Commissioner Harold Iverson on its cold weather operation:

#### 2 to 3 times as many driveways cleared

"We use our D Tournapull mostly for plowing out farm driveways," Iverson says. "Clearing and widening the average 200 to 250' driveway takes less than 3 minutes with this rig, as compared to 10 to 15 minutes with a 10-ton, all-wheel-drive truck and even longer with a motor patrol. I'd say we clear at least 2 to 3 times as many driveways in a day with our 'D' as we do with a truck."

"For example, one day right after a heavy storm, the 'D' plowed out 36 driveways over 30 miles of

country roads. A truck would have cleared 15, maybe 20.

#### Maneuverability speeds work

"The biggest advantage of the D Tournapull is its maneuverability. You can turn it around with its own length. You can't get stuck! With a truck you have to line up your wheels very carefully before starting to plow a driveway so you don't fall into a culvert . . . with a Tournapull, you just turn on the run and drive ahead. Tournapull operator also has a clear view of the plow blade which speeds his work considerably."

When your county or city purchases modern LeTourneau earthmoving and snow removal equipment, you can be sure you are getting most for your money in speed and economy. These high-speed, rubber-tired units drive to work anywhere, eliminate transportation costs and delays, get jobs done in a hurry with minimum use of muscles and manpower. They pay dividends to the taxpayers in better year-around maintenance of highways and other public works facilities.



**LeTOURNEAU, Inc.**

Peoria, Illinois

## PRODUCTION BRIEFS



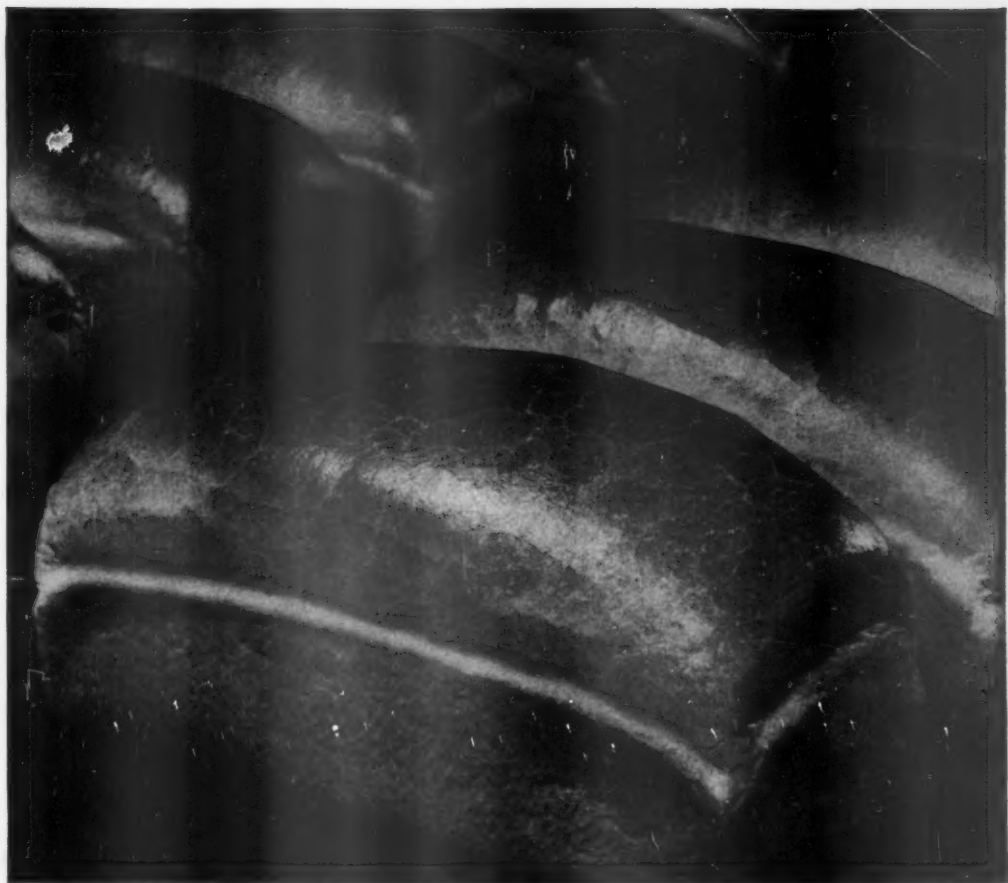
Don't spray them; just pour it on: That's the way Aluminum Co. of America paints its plant fences. R. W. Spence, a paint foreman of Alcoa's New Kensington (Pa.) plant, worked out the idea of covering each side of a fence with a panel. Paint poured over the top dribbles down the fence between the panels. The method cuts costs in half.

More parts for machine tools will be made in Warner & Swasey Co.'s \$1.5-million plant at New Philadelphia, Ohio. The finished products are slated for assembly in the firm's Cleveland plant, which will boost its production by 50%.

Electric smelting furnaces that turn iron ore into pig iron have been ordered by "a South American country" from Pittsburgh Lectromelt Furnace Corp. This is the first deal of its kind in the Western Hemisphere. Such furnaces are used for smelting in Europe where electric power is cheaper than coking coal.

Radioactive wastes at General Electric's atomic power laboratory are neutralized by burning in a furnace at 1,000F. Smoke particles, which might be radioactive, are washed and filtered, and the remaining solid wastes can be dumped in an isolated area.

The latest on machinability of metals has been published in a book of Curtiss-Wright Corp., under the sponsorship of the Air Force Materiel Command. It covers the effect on tool life of the microstructure of plain-carbon, alloy, and stainless steels. The title: Increased Production, Reduced Costs Through a Better Understanding of the Machining Producers and Control of Materials, Tools, and Machines.



## Why every loaf is *baked to a turn*

A generation ago, the bread you purchased varied in taste, texture and color almost from loaf to loaf. Today, each loaf you purchase is identical . . . *baked to a turn*.

This day-in, day-out uniformity in bakery products is due in large measure to the widespread use of instrumentation by this progressive industry. It starts with precise quality control and exact measurement of all ingredients. Even variables such as moisture content are carefully controlled.

Then the temperature of the huge conveyor-type baking ovens is automatically maintained at exactly the right degree. And finally, the baking time

is controlled by accurately controlling the speed of the oven conveyor with an electrical tachometer calibrated to read "minutes baking time." *At every step of the way*, instruments are used to insure a uniform, high quality product.

For the baking industry, too, WESTON supplies complete instrumentation covering all these measurement and control problems . . . whether involving moisture, temperature, time, electricity or pressure . . . WESTON Electrical Instrument Corporation, 580 Frelinghuysen Avenue, Newark 5, New Jersey . . . manufacturers of Weston and Tagliabue instruments.

**WESTON** *Instruments*

TO INDICATE — RECORD — CONTROL —  
LIGHT — ELECTRICITY — TEMPERATURES — PRESSURES



# **HUFFORD** precision-hydraulic

...from a feather-soft KISS  
to a 150 Ton Bump!

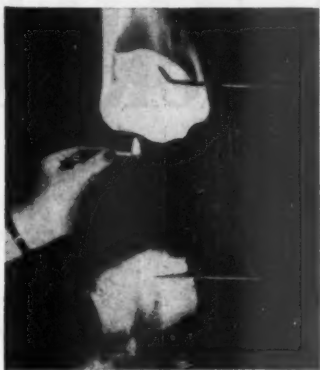


**HUFFORD**  
Machine Works Inc.  
EL SEGUNDO, CALIFORNIA

*Manufacturers of*

MODEL 85 ILLUSTRATED  
150 tons capacity  
Higher or lower  
tonnages available.

## NEW PRODUCTS



Untreated, a wad burns (top) but . . .

### Cotton Is Fireproofed

Last year almost 5,000 people were burned to death—and one of the major causes of these tragedies was inflammable textiles in beds, clothing, and draperies. Now American Cyanamid Co. has come up with a durable fire-retardant called Pyroset, which is especially applicable to mattress cotton, ticking, and mattress pads.

Cotton treated with Pyroset will char, says American Cyanamid, but it won't flame or smoulder at all. It's supposed to retain its flame repellent properties after 25 dry or wet cleanings. The Pyroset has little effect on the "hand" or feel of the fabric and makes for little or no loss in tensile strength.

• Source: American Cyanamid Co., Textile Resin Dept., Bound Brook, N. J.

### Cut Down Zinc Waste

Zinc is a scarce metal these days. To help offset the scarcity, Glaze-All Products, Inc., has come up with a masking film, called Galva-Mask, that will cut down waste in galvanizing. You spread the transparent, varnishlike material over the places that you don't want galvanized. The film withstands the alkaline cleaners used during the process and the 800F heat of the molten zinc.

Glaze-All's engineers will help you set up the process.

• Source: Glaze-All Products, Inc., 1501 W. Division St., Chicago.

• Price: \$4.70 per gallon.

### Forced-Air Heating

For industrial plants, there's nothing new in forced-air heating using ceiling installations. W. B. Connor Engineer-

# OSBORN



## Heard about these ways to find manpower?

*And cut costs!* Every manufacturer should know about this brush . . . the Osborn Master® Strip. In its more than a thousand forms, shapes and sizes, this power brush . . . at the push of a button . . . is doing jobs formerly requiring many skilled hands. It is boosting output, improving product quality and slashing costs.

Master Strip can be used in special mountings—straight, curved or coiled in a helix. Its fill material can be wire, hair, fibre, textiles or synthetics in trim lengths from 1 to 10 inches. It comes in any length up to 120 inches. Name your problem—cleaning, scrubbing, finishing or many others. It can be matched to *your* job!

The nearby Osborn Brushing Analyst will gladly study *your* manufacturing operations and explain how you can benefit with this versatile tool! Call today or write The Osborn Manufacturing Company, Dept. 594, 5401 Hamilton Avenue, Cleveland 14, Ohio.

# Osborn Brushes

OSBORN POWER, MAINTENANCE AND PAINT BRUSHES AND FOUNDRY MOLDING MACHINES

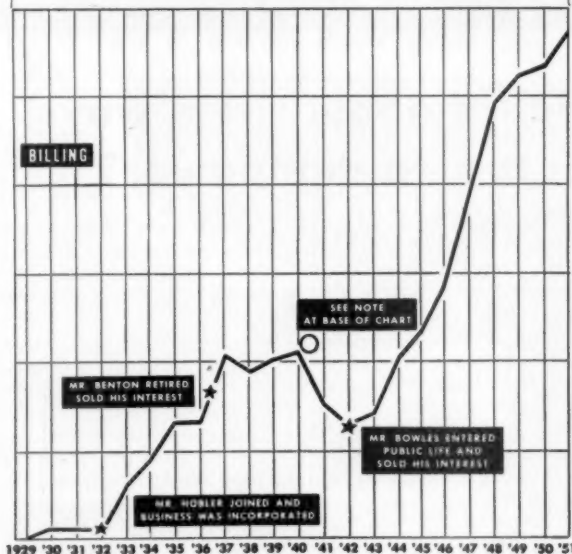
# WHAT is Back of

## *Of 30 Products Advertised*

## *25 Rank First or*

### Growth of Benton & Bowles

*Since 1941, over 50% of yearly increase has come from existing clients in expanding campaigns and in new assignments.*



NOTE: At the end of 1940, Benton & Bowles lost the Colgate-Palmolive-Peet account and the Continental Baking account. In 1941, and shortly thereafter, these were replaced with accounts in the same fields, which are among our present clients.

OVER the last ten years B&B has grown dramatically. Our business has more than tripled and the success of our clients' business has gone hand in hand with this growth.

Behind any record of business growth like this, it is natural to expect there is some core philosophy at work and a special set of circumstances.

Both are true in our case.

Our philosophy is simple. We believe the relationship of advertiser and agency is one of the most intimate of modern business relationships. On the agency's side, it is a partnership that must far transcend an interest in purely advertising operations. It embraces an interest in the business of our clients as a whole—their products, their sales and their profits.

This philosophy is, however, a minor part of the whole story. The major factor has been our clients. We have been fortunate in having experienced clients who know their business—from product and manufacturing to merchandising and pricing. And—they appreciate and know how to use the special talents an advertising agency can bring to bear.

### *Over 700 People to Serve 18 Clients*

We have been favored, too, by special circumstances. The actual structure of our business has helped us achieve our working philosophy. For while B&B today ranks as a large agency, now among the first seven or eight in total billing, the number of clients we serve is relatively small.

# THIS RECORD?

*Nationally by Benton & Bowles  
Second in their Fields.*

There are only eighteen active accounts. With over 700 people made available to this number of clients, there is, we believe, a depth of service that fits in a well-rounded way each particular client's needs. Further, due to this almost unique structure of our business, we find that the principal heads of the business can and do have daily familiarity with and active participation in the accounts we serve.

We believe this close, personal interest and knowledge by the heads of our company, supported by

our large executive group and the range of facilities of a large agency, are circumstances not generally prevailing today. We are sure that this same personal concern invites the atmosphere of frankness and forthrightness which our clients have told us they appreciate in our relationship.

Advertisers interested in discussing client-agency relationships are cordially invited to get in touch with us. Many of our facilities are now sufficiently large to enable us to serve one or two additional companies without sacrifice to our present clients.

## CLIENTS WE SERVE

GENERAL FOODS CORPORATION

THE BEST FOODS, INC.

THE PROCTER & GAMBLE CO.

ARNOLD BAKERS, INC.

PEPPERELL MANUFACTURING CO.

LENOX, INCORPORATED

THE DIAMOND MATCH COMPANY

THE NORWICH PHARMACAL COMPANY

BENSON & HEDGES

GENERAL ELECTRIC CO.—  
Chemical Division.

AVCO MANUFACTURING CORP.—  
Crosley Division—Appliances,  
Television and Radio Sets.  
Lycoming—Spencer Division.

BITUMINOUS COAL INSTITUTE

AMERICAN EXPRESS COMPANY—  
Travelers Cheques.

MUTUAL LIFE INSURANCE COMPANY  
OF NEW YORK

ASSOCIATION OF AMERICAN RAILROADS  
CIGAR INSTITUTE OF AMERICA, INC.

BREWING CORPORATION OF AMERICA  
BELLWIS & COMPANY, INC.

## BENTON & BOWLES, Inc.

Atherton W. Hobler, Chairman of the Board; William R. Baker, Jr., President; Robert E. Lusk, Executive Vice-President

*Advertising*

444 MADISON AVENUE, NEW YORK 22, N. Y.

## SKILLED MEN and EFFICIENT MACHINES...

Highly efficient wire drawing machine designed and made by Keystone to insure better products at lower cost. Harry Goodin, a member of the 25 Year Club, is the operator.



**at your  
SERVICE!**

Practical experience and special skills guide the hands and counsels the thinking of the men who operate Keystone's custom-made equipment. Does your product require wire of special analysis, finish, temper for unusual fabricating? Whatever the need, there is a Keystone custom-drawn specialty wire to keep your production flowing smoothly. You can depend upon it!

## KEYSTONE

### "SPECIAL PROCESSED" COLD HEADING WIRE

Keystone's "special processed" cold heading wire has uniform upsetting and forming qualities plus excellent flow properties which often double plug and die life. Production reports show less waste, fewer rejects, reduced inspection time and a higher quality finished product.

**Keystone Steel & Wire Company**  
PEORIA, ILLINOIS

More  
**SCRAP**  
today...  
More  
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tomorrow!

ing Co. is now bringing out a similar system for home heating, using a new type of air diffuser.

Here's how the system works: One central duct runs up to your attic from the furnace. The small ducts to each diffuser are laid across the attic and are prefabricated so that each duct exactly fits the size of diffuser you use in any room. The diffuser deflects the airstream downward (it will not streak the ceiling) so that the warm air mixes with the cooler air and sets up a circular current in the room. Return grilles throughout the house placed below windows "pull out" the cool air as it settles, draw it to the furnace for reheating.

Chief advantages of the system are economy of installation, plus a complete circulation of air at even temperatures throughout your house.

• Source: W. B. Connor Engineering Co., Danbury, Conn.

## NEW PRODUCTS BRIEFS

**Bottled gas makes a fire alarm:** You hang up Syracuse, N. Y., Fyr-Larm Co.'s "bomb." When temperature reaches 130F, the gases blow off through a whistle at the top of the bomb and warn you of the danger.

**The Jet-99,** a new vacuum cleaner made by Universal, features all-steel construction, a 1-hp. motor, and an easy emptying device. Just push a button, lift out and throw away a paper bag, drop in a clean one, and snap the lid down again.



### Reset Thermometer

This outdoor thermometer registers the temperature plus the high and low for the day as well. Its gimmick: A little button installed inside your window resets thermometer by remote control. Cost: \$15 from Taylor Instrument, Rochester, N. Y.

# The only question is "when?"

Sooner or later the man looking for a better truck buys an International.

Then he wonders why he didn't do it sooner. He gets better performance, he cuts costs, he makes more money.

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- Service by nation's largest exclusive truck service organization.



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157 inch wheelbase,  
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# ENTERTAINMENT



**THE PLACE** Physically, the Stork has little to show why it is the world's most famous night club.



**THE SECRET** Most of its fame and glamor comes from celebrities of all kinds, whom Billingsley has

## Stork Club: Glamor Helps Businessmen

For the average U.S. night club, Santa Claus comes not on Christmas but on New Year's Eve. That's the one night every year when it can count on doing a business to make men in other forms of entertainment drool. And for many a night spot the amount of money it squeezes from the patrons means the difference between staying open or closing up for good.

• **The Big Robbery**—Last week it looked as if few would fold because of a bad New Year's Eve. On the whole, the law of supply and demand had still been in their favor: There was still not enough room to handle all the people who wanted to spend anywhere from \$10 up a head to sit at a foot-square table in the half-lit din of a small room. As a result, the owners could charge what the traffic would bear—and the traffic bore a lot. Said one New Jersey night club man: "We robbed 'em good."

Some night clubs are above all this and proudly point out that they don't

have to "rob 'em good" on the big night. The main night spot in this enviable position is Manhattan's Stork Club, long regarded by the common man as the top playground of high society and well-heeled famous people.

• **Nothing Extra**—The Stork had no extra charges at all on New Year's Eve; you paid the same for food and drink on Dec. 31 as on any other night. The big catch, of course, was that not everybody could get a reservation—the Stork Club saved most of its space for its steadies. But anybody could go in for a drink at the bar, even had a chance of getting a table.

### I. An Aura of Glamor

The Stork Club can get away with this kind of behavior because being the world's most famous night club has also made it one of the most successful. These days it's grossing about \$2-million a year; seldom does it experience the kind of slump that makes owners

of other night clubs wish that they were lumberjacks.

• **Smart Publicity**—The basic reason for this lies in smart publicity. The key to this effort is Sherman Billingsley, the boyish founder and proprietor of the Stork. Through years of close association with some of America's most high-powered journalists—particularly columnist Walter Winchell—he has spread the Stork Club name around the world. More important, around that name has been carefully fashioned an aura of glamor seldom equaled.

• **Backfire**—Sometimes the publicity backfires loudly. Certainly the Stork Club has as many detractors as it has admirers, possibly more. One reason is that somehow most people have the idea that this is a place only for famous and wealthy snobs, that the common people can't get in. Actually, anyone can get in if he is well-dressed and doesn't look as if he wants to start throwing things. Billingsley says, "Between 5,000 and 4,000 people a day



managed to attract and keep on as steady customers. Above: Joe E. Brown.



**THE PAYOFF** Expense-account customers from business fill Stork's tills at special luncheon meetings like this.

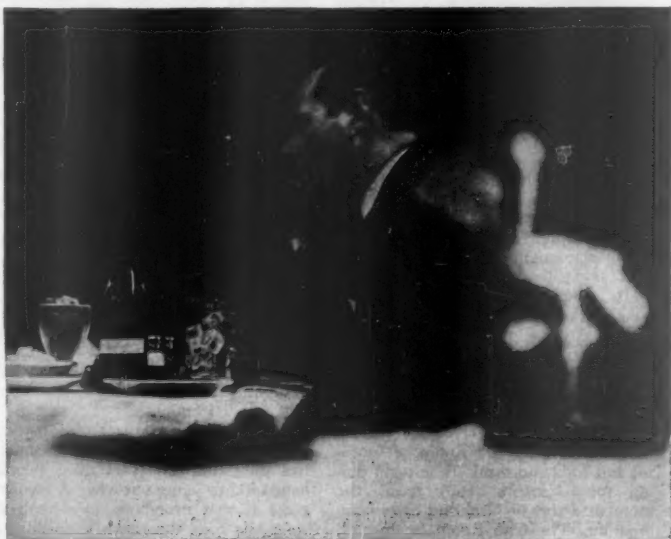
## Sell Clients

come to the Stork Club. They can't all be celebrities."

Regardless of what some of his customers think of the Stork Club, Billingsley knows that it has a peculiar fascination for them. He loses thousands of ash trays a year at the hands of people who simply steal them. (He makes up the financial loss by selling them to more honest types.) Billingsley can have no insignia on his china, glasses, tableware, or linen: "I would go broke overnight if I did."

• **Businessman's Playground**—Against this background, it is little wonder that a large proportion of out-of-town businessmen either go to the Stork Club or want to when they come to New York. And it's little wonder, too, that salesmen and advertising men take out-of-town clients there: It seems to be a lot easier to get a man to say "yes" over lunch in the Cub Room than at most other restaurants in town.

Billingsley says that now nearly half his customers are businessmen—and he's



**THE MAN** Sherman Billingsley, who owns and operates the Stork, is real key to the night club's special qualities.



TELEVISION PROGRAM goes over CBS network two nights a week from studio on fourth floor that is replica of Cub Room.

delighted. Nothing looks better to the proprietor of any place of entertainment than an expense-account customer. Happily for Billingsley, more and more business concerns—particularly advertising and public-relations agencies—are using the Stork either for small get-togethers over meals or cocktails or for large private parties. (The second floor has a dining area that can be divided up nine ways to make private dining rooms of various sizes.)

• **Little Entertainment**—The strangest part of all this is that you must look hard to find any tangible reason for the Stork's aura of glamor. In an entertainment sense, it can't come close to competing with even the average second-rate night club. All it has to offer along these lines is a 15-ft. by 20-ft. dance floor (enormous for a New York night club) and two small orchestras that provide uninterrupted music during the evening.

Even this entertainment is limited to the main dining room. Patrons in the bar, the Cub Room (the Stork's top room, usually reserved for celebrities), and the Loner's Room get nothing but food and drink. The main dining room (seating 160) is at the moment a sort of black-and-silver combination. The Cub Room (seating 80 or 90) is paneled, quieted by sound-proofing, and covered with large photographs of celebrities—mainly women.

Billingsley once said: "Beautiful women are the only decoration worth a damn in a night club."

• **No Club**—From this emerges one clear fact: The Stork Club is not a night club at all. That's true not only entertainment-wise, but economically. Most night clubs open around dinner time and close at 4 a.m. The Stork runs 17 hours a day—from 11 a.m. to 4 a.m. Liquor—the payoff item in any eating place—accounts for only about 25% of all sales in most spots. At the Stork, it runs at 50%.

Since it has no entertainment program, the Stork doesn't have to maintain a big array of dressing rooms, showers, and the other items necessary to run a small theater. Also, it doesn't have to worry about paying expensive stars or even a cast of lesser performers. Even so, Billingsley's biggest expense is his staff payroll, at \$600,000 a year. Next biggest is his gifts to customers. After all other expenses, Billingsley has something left for himself that runs well into six figures.

• **Snobs?**—Despite its lack of entertainment, the Stork still draws customers like flies. For 20 years now, people have tried to figure out why. A favorite guess is that everybody is a snob at heart and likes the exclusive feeling of mingling with other snobs. One Stork Club appraiser once wrote caustically: "If the celebrities should desert Bill-

ingsley, so would almost everyone else. . . . The show consists of the common people looking at the celebrities and the celebrities looking in the mirrors, and they all sit pop-eyed in admiration."

## II. The Real Secret

But the real secret of the Stork's success lies deeper than this. Says Billingsley: "Sure, Winchell can get people to come here. But once they're here, we're on our own—it's strictly up to us to keep them coming back." You do that, Billingsley thinks, simply by pleasing them. "That's the secret of any business. If you please the customers, you'll get repeat business. That means giving them quality, service, honesty, a clean atmosphere."

• **Too Much Too Fast**—So many night clubs fail, Billingsley says, because they don't give all these things. Instead, they try to make too much money too fast. "That's wrong. You can't get a flow of satisfied customers if you try to squeeze every penny out of them you can."

Billingsley thinks that Prohibition had a great deal to do with the cli-joint attitude of many night-club operators. Recalling the days when the Stork was a speakeasy, Billingsley said: "Every day was the 'last day'; you were always expecting to be raided and shut

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● Because distracting noise is so harmful to efficient business operation, practically all new building specifications include acoustical ceilings for sound absorption. However, just because your present building was constructed before sound control became an established science, there is no reason for you to be handicapped by noise. You can have a Johns-Manville Acoustical Ceiling quickly installed over your present ceiling.

Johns-Manville FIBRETONE offers an acoustical ceiling which is highly efficient and modest in cost. It consists of 12" square panels of sound-absorbing materials in which hundreds of small holes have been drilled. These holes act

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Other Johns-Manville Acoustical Ceilings include *Perma-coustic\**, a textured, noncombustible tile with great architectural appeal; *Transite\**, panels made of fireproof asbestos; and *Sanaoustic\**, perforated metal panels backed with a noncombustible, sound-absorbing element.

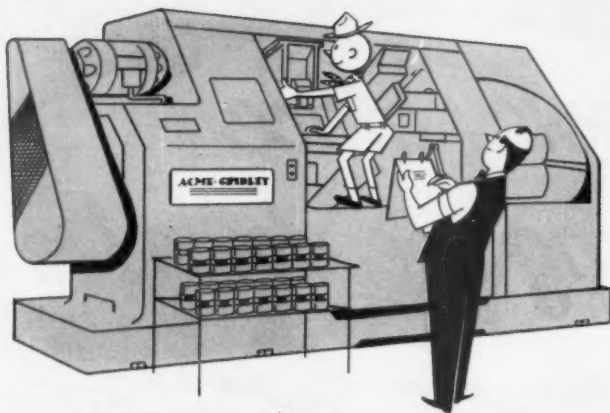
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7. **SIMPLIFIED OPERATION** Permits the most Efficient Use of Available Man-hours. You can use relatively unskilled help to operate Acme-Gridleys, making top use of more experienced manpower.

No other source offers a line so complete—so much design and tooling experience in multiple and single spindle bar and chucking automatics—more than 15,000 machines built. May we show you how your plant can benefit from this unequalled background in efficient metal turning?

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ACME-GRIDLEY BAR and CHUCKING AUTOMATICS built in 1, 4, 6 and 8 spindle styles, maintain accuracy at the highest spindle speeds and fastest feeds modern cutting tools can withstand.

down. So most operators wanted to grab every nickel they could while they could."

• **No Suckers**—"That element hurt the business badly. After repeal, we had to overcome it. My way was to give people a check for less than they expected instead of more. I always tried to keep one round of drinks off the check. I never felt a craving for dollars, never looked for big suckers or big checks." (This attitude is borne out in the Stork's prices. The food is excellent and is less expensive than in many similar places around town. Still, don't go there if you're broke.)

• **Gifts**—Billingsley carries this principle to an even greater extreme. He has long been noted for his policy of showing his customers with gifts ranging from an after-dinner brandy to diamond pins worth several hundred dollars. Not every customer gets so treated, but a lot more do than don't. A man who is really "in" generally gets a bottle of champagne during dinner, a lipstick or a bottle of Sortilege (it means "sorcery") perfume for his lady, a tie or a pair of red suspenders for himself.

In this policy, which Billingsley says is dictated mainly by how he feels at any given moment, lies the secret of the Stork Club's success. Billingsley says that he started giving gifts because he couldn't get around to see everyone personally. Gifts let the customer know that he knows that they are there.

• **"Mine Host"**—Whatever Billingsley's reason, it is a highly successful formula. It satisfies one of the strongest of human instincts—wanting to be recognized as an individual. It gives a man the same feeling that he gets when he takes a friend to a bar where the bartender calls him by name.

Billingsley himself stands as the epitome of this "mine host" approach. He has a genius for imparting to almost all his customers the feeling that they are the most important people in the place. A gift from Billingsley makes a customer believe that he is a part of the Stork's glamor. There's no more effective way to insure repeat business.

### III. In and Out of Trouble

John Sherman Billingsley has a lifetime of experience to make him a genius as a host. Born in Enid, Okla., he quit school after the fourth grade, had his own soda-pop stand when he was 12. A year later he was peddling bootleg liquor in his three brothers' chain of Oklahoma City drugstores.

• **The First Canopy**—At 23, Billingsley found himself in New York City. Shortly before the 1929 crash, he opened a speakeasy on West 58th St., the wrong side of Fifth Ave. "It was the first speakeasy," says Billingsley,

# Which of these 4 dangerous ideas do you have?

(Any one of them could put you out of business)



**1. Do you have the idea** your accounts receivable and other business records will always be there when they're needed? Don't be too sure. Many a businessman has discovered, after a fire, that the records he thought safe, were ashes . . . and the business that depended on them, totally ruined.



**2. Do you have the idea** an old, heavy-walled safe will guard your records from fire? It's a dangerous idea. Old safes without an Underwriters' Laboratories, Inc. "A" Label often act as incinerators when the temperature gets above 350° F. They cremate records.



**3. Do you have the idea** a fireproof building is a sure-fire protection? Just ask a fireman. You'll find that buildings like this only wall-in an office fire. They actually make it hotter!



**4. Do you have the idea** your fire insurance would cover all your losses? Take a good look at your policies or ask your insurance broker or C.P.A. You'll find you have to prepare a proof-of-loss statement before you can collect fully. Could you do it—without inventory records?

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A year and a half before the axle snapped to cause this disastrous pile-up, a minute crack started. The axle looked all right during overhaul. It passed the eagle eyes of the inspectors. But this tiny, invisible crack grew larger and deeper in the thousands of miles—and 18 months of service. Finally—the axle gave way entirely, in a typical, progressive, fatigue failure.

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64



GIFTS to customers are one of Billingsley's main inducements for repeat business.

"that had a carpet on the floor and a canopy out front." The canopy brazenly advertised the place for what it was: Billingsley had the words "Stork Club" put on it. (He doesn't know to this day where the name came from.)

Prohibition agents ended the life of this venture. But by 1932 Billingsley had found his way across Fifth Ave. and set up business again at Park Ave. and 51st St. Since the repeal of prohibition, the club has been at its present site at 3 East 53d St.

• **An Easier Time**—Billingsley has had an easier time at his new place—nobody has succeeded in closing him down. There have been a couple of good tries, however. One came last October. Josephine Baker, noted Negro entertainer, claimed that she had gone to the Stork Club and been badly treated—even though she did get into the Cub Room and was served. This brought such an uproar of protest from antidiscrimination groups that it looked as if Billingsley might lose his cabaret license. After thorough investigation, he got a clean bill of health.

• **Other Interests**—On the whole, Billingsley has never had it so good as he has right now. With Arthur Godfrey and Steve Hannagan, the public-relations man, he owns the company that

makes his perfume, which is sold in 48 states and runs in sales at about \$5,000 a day. He has an interest in Stern, Merritt Co., Inc., which makes the neckties he gives away at the Stork Club. Billingsley also owns the two buildings in which his Stork Club is housed.

A little over a year ago, Billingsley took over a new venture. From a replica of the Cub Room on the fourth floor of the Stork Club comes a 15-min. television program twice a week. Over a 40-odd station CBS network, Billingsley interviews guests, famous and otherwise. Fatima cigalettes (Liggett & Myers) sponsors the program, pays \$20,000 per program for it. Of this Billingsley gets \$5,000 a week for himself.

• **A Country Man**—For the most part, Billingsley subordinates his whole life to the Stork Club. Oddly enough, he is a man who yearns for the country, even though his job keeps him in the heart of metropolitan life. He doesn't get to spend much time with his wife and three daughters, unless they go to see him at the Stork Club.

Generally, he's on the job every minute the place is open, which is seven days a week. "I don't know why," he says. "I guess I just must like it."



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# MANAGEMENT

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**2** ... gives \$50,000  
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to charity

TAXABLE NET PROFIT*	\$1,000,000	\$950,000
LESS (Normal tax and surtax )	520,000	494,000
TAXES* (Excess profits tax )	150,000	135,000
<b>EQUALS: NET AFTER TAXES</b>	<b>\$330,000</b>	<b>\$321,000</b>

**SO** IF ABC CO. WANTS TO, IT CAN DONATE \$50,000  
AT A NET COST TO AFTER-TAX PROFITS OF ONLY \$9,000.

\*Assuming it becomes subject to excess profits tax on income above \$500,000

## But It's Not Easy to Give Money Away

Giving away money ought to be easy for anyone—and especially when as much as 82% of a company's profit belongs to the government (table, above). But in the past few years industry has been inundated by so many requests from organizations trying to dip into the corporate till that what to do about donations has become a pesky management headache.

Last year the pleas of charities and welfare groups hit a new peak. There's no sign of any letup this year. Beardsley Ruml added fuel to the fire with his plan, urging industry to give away 5% of its profits before taxes (BW—Aug. 18 '51, p. 28). The idea is that today's high tax rates for companies in the top brackets make giving attractive because it's cheap. So management ought to give right up to the limit the tax laws allow.

• **The Way the Wind Blows**—To find out just what companies are doing about Ruml's plan and the whole problem of how you handle corporate donations, BUSINESS WEEK reporters last week queried a representative group of management men in all parts of the country. Their answers pretty well established three things:

• There is a definite trend among business, big and small, not only to set down written rules about donations but

to create the same kind of management machinery for giving away money as they use for making it.

• It will be a long time before most corporations donate anywhere near the full 5% of their net profits before taxes.

• Education is going to get a greater share of the corporation dollar, both through scholarships and in direct donations. The latter, however, will still drag far behind the well-established policy of company scholarships.

### I. How Much?

Some companies will tell you they donate pretty close to the 5% limit deductible before taxes, but they are just a small minority. Almost always they are tightly held companies that don't have to worry about stockholders' reactions. With publicly owned companies, it's different. It isn't their own money directors are giving away. One such Chicago company uses as its base the figure pegged by the National Industrial Conference Board as the industrial donations average—about .06% of sales. Its 1952 budget has been set at \$12,000 for charitable donations, based on an estimated \$20-million volume. As a percentage of net before taxes that amounts to less than 1%.

Ruml's call for the full 5% each year has met with only scattered response. An electrical company describes the 5% goal as way too high. For one thing, management of this company doubts whether stockholders would approve. And it's pretty sure there'd be a stockholders' suit if its officers decided to give that much away to charities or schools without any strings or direct company benefits. Before it would approach that figure, it wants a clear-cut test in the courts—against somebody else—on management's right to give stockholders' money away.

• **Out on a Limb**—One big point in all this: Cheap money donations can boomerang under the carry forward-carry back tax rule. In case losses in later years are carried back to offset present comfortable profits, some companies might find they have actually been giving away 100-cent dollars to charity, when they thought they were giving 18-cent dollars.

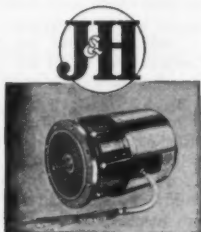
### II. How to Give It Away

Naturally, businessmen are concerned with how much to give. But they're even more interested in how to handle donations. Screening alone is quite a big problem. The mushrooming of all



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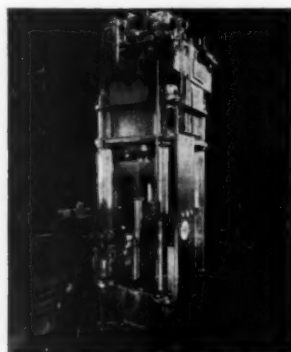
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kinds of drives has forced companies to coordinate their contributions.

In most cases directors still have the final say; some boards of big companies still pass on any gift over \$250. But a lot of companies have set up machinery that lets operating people make the decisions, based on fixed budgetary limits.

• **Foundations-Minded**—So far, though, only a few companies have adopted the second part of Ruml's plan: setting up a tax-free foundation to receive and parcel out a company's donations. But there are some signs of a trend in that direction. At least one big auto company has it under consideration at top level. Other companies, like Ford Motor Co., Sears, Roebuck & Co., Bulova Watch Co., Lehigh Structural Steel Co. (BW—Sep. 22 '51, p. 66), H. J. Heinz Co., already have it.

Last week the Birmingham (Ala.) Slag Co., a closely held company, announced creation of the Ireland Foundation, which will get just about the full 5% from the company for the first few years. The initial contribution was \$50,000. Pittsburgh Plate Glass Co. applied last fall for a charter for a tax-free foundation carrying the company's name. It will handle all Pittsburgh Plate's donations.

The advantages of a foundation are obvious: (1) It sets up a framework for orderly handling of donations, and (2) a company can cut donations in lean years, yet still keep contributions coming from tax-free funds accumulated in good years and from investments made by the foundation.

But it will take some big publicly owned corporations to set the pace before the foundation scheme really catches on.

• **Ways and Ways**—Meantime, here are a few other schemes described to BUSINESS WEEK's reporters:

Standard Oil Co. of California, after a long study of about 40 other companies, put together a formal donation system last year. It's run by top management through a donations committee, operated as part of the public relations program. Chairman is the financial vice-president. Each month the group screens requests. Budgets set each year are reviewed quarterly, but only after interviewing big charity organizations to get an idea of needs. The money is prorated to the company's business areas, based on sales and number of employees in each region.

This type of organization is fairly typical of big companies with widespread operations.

Besides that, companies are getting behind one-shot donation campaigns in their cities. That cuts the screening considerably. Los Angeles has such a plan, called AID (Associated In-group Donors). It handles both employee

# BUSINESS IN MOTION

## *To our Colleagues in American Business...*

The Revere Technical Advisors call upon manufacturers from coast to coast, when requested to collaborate on special problems concerning the selection, fabrication or application of copper and copper alloys, and aluminum alloys. The procedure is this: the T.A. sits down with the customer or prospect, and together they study the project put before them by circumstances. It is a close collaboration, a joint effort that frequently results in marked improvement in quality or lessening of costs, or both. Here are some examples:

- Customer staking diamond inserts in free-cutting brass rod reported that the rod was turning color under the diamond, resulting in rejects. The brass was machined with a water-soluble oil, and cleaned with a special preparation. It was discovered that parts machined with sulphur-bearing oils were being cleaned in same container. This was the cause, and the obvious remedy eliminated discolor.

- Plumbing goods manufacturer was puzzled by the fact that brass tube purchased in small grain sizes for good plating qualities was giving both bending and plating troubles. Inspection of the processes of the manufacturer showed that the tube was being annealed with a torch before expansion and plating. This annealing resulted in a large grain size of .250 mm., as shown by a typical sample sent to the Revere Laboratory. Thus the apparent anomaly was explained, and close control of annealing was established to keep grain size within the necessary limits for satisfactory plating.

- An electrical manufacturer was using a very

special and expensive copper alloy as a liner for a plunger housing. He felt this extremely hard alloy was necessitated by the large amount of wear on the part. Revere suggested that Herculoy, a silicon bronze, would be worth trying in hard temper. Tests were made, and the Revere alloy was found completely satisfactory. Substitution provides a metal that is more easily available, and at the same time costs less than the original.

- A maker of a timing device was having trouble blanking cleanly a small gear part. Detail was so fine and ratio of tooth height to width so great that leaded brass had a tendency not to form full teeth. A



study of this problem brought forth the suggestion that a more ductile metal was needed, namely,  $\frac{3}{4}$  hard cartridge brass. This worked beautifully when tried, and customer is extremely pleased with the tremendous reduction in rejects of this difficult part.

These are just a few of a number of cases that went into the "closed" file during a single month. Almost every other supplier to industry today does much the same sort of work with his customers. He feels it is not only a fine way to build good will, but also a part of his obligation to the customers who have helped him grow. It is a fact, of course, that every dollar you pay, whether for chemicals or metals, glass, cements, papers, carries a small charge for the research and know-how and skill required to make fine products. Your suppliers have knowledge you have helped pay for — why not use it as well as their materials? The results may be as pleasing as those in the four instances just cited.

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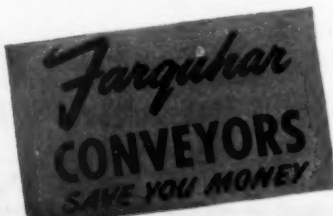
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contribution campaigns and corporate donations. Since it was started last July, 210 companies have signed up. Forty-seven want AID to handle both employee and corporate donations; 20 declined to let AID handle company contributions. The others, which are now using AID for employee contributions, may turn over their corporate donations, too.

For the 47 companies, contributions from each corporation are figured on a share plan based on size and volume of business.

Similar one-bundle schemes are being tried out in other cities, notably Detroit and Columbus. Most have management's backing. In San Francisco, Firemen's Fund Insurance Co. chairman James F. Crafts heads a movement for consolidated giving in that city. He thinks a fair degree of federation for corporate giving will be achieved this year.

### **III. Who Gets the Money?**

Back of all the management planning is this attitude of most businessmen: "We don't want to miss any worthy cause, but we don't want to be suckers." Community Chests, TB campaigns, Red Cross, heart and cancer funds all readily come in for their share. They take the biggest bite by far.

That leaves education the big question mark for a lot of companies. Should they help underwrite schools, taking the place of private endowments that are now pretty well dried up? Scholarships, of course, are fairly commonplace—like General Electric's million-dollar fund, Pepsi-Cola's plan, and Westinghouse Electric's scholarship foundation. But still only a few companies make outright gifts to schools. Some even have long-standing policies prohibiting that kind of giving.

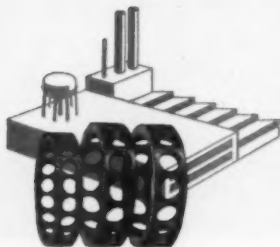
• **No Strings**—It's outright gifts, though, that colleges want most. Management's problem is to decide what schools to help, without causing jealousy. A few states have come up with an answer. In Ohio, for instance, funds are flowing into the Ohio Foundation of Independent Colleges set up by 19 nontax-supported schools (one recent gift: \$25,000 from Cooper-Bessemer Corp.). The schools themselves allocate the money.

President Samuel N. Stevens of Grinnell College describes similar plans in Michigan, Iowa, Indiana, and Minnesota. In Iowa five college heads decide how industry's gifts are disbursed—60% prorated among 22 colleges, 40% for colleges with a special need during the year.

Even though educational donations of this kind still lag far behind, these signs may point to a general shift in company policies.

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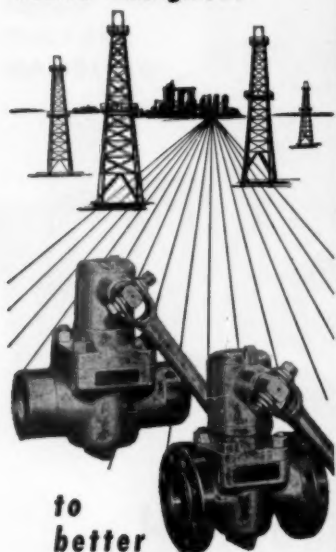
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**WORKERS** at North American Aviation fill out questionnaires on fellow employee who is up for promotion. As a result, the new . . .



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## Picking Foremen in a Hurry

At the Columbus plant of North American Aviation, Inc., employment has multiplied by five in about a year's time. That's rapid expansion. And it has brought with it one of management's toughest problems: How do you pick the right people for supervisory jobs when you have to pick so many so fast?

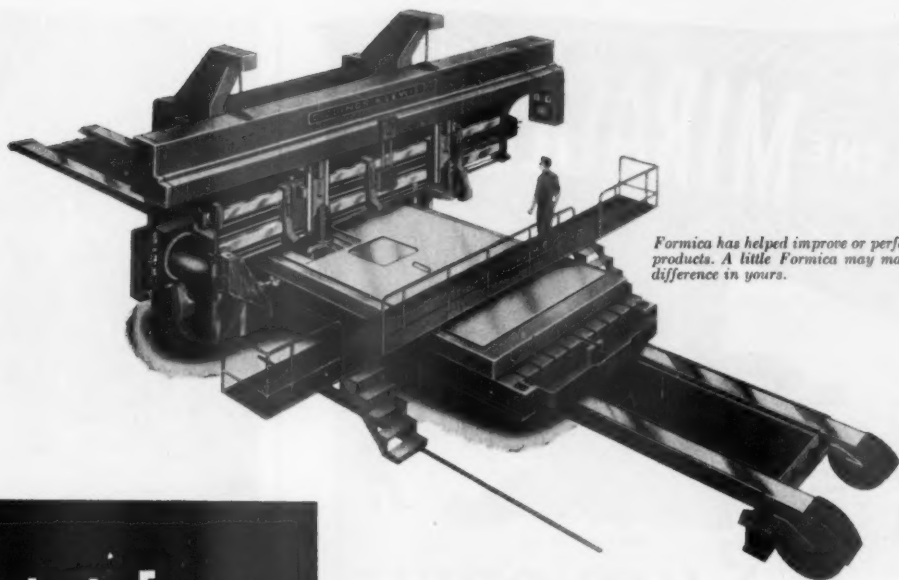
North American thinks it has the problem pretty well licked by use of a promotion-by-vote system. In princi-

ple, the system is not new, but North American's version has two out-of-the-ordinary features:

- Before anyone can be promoted, he has to get the nod from his fellow employees.

- An employee who wants to be promoted is allowed to nominate himself.

- The Dilemma—Ordinarily, companies can take their time in picking supervisors. Management can take a



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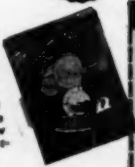
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NEW EMPLOYEES are pouring in; North American will have 17,000 by summer.

long look at its employees, get a good idea of who ought to be promoted from the ranks. Training does the rest.

But when you expand rapidly, that isn't possible. Management often has to make a guess—and too many wrong guesses can wreck a production line.

At North American, the problem's a big one. In about a year's time, it has boosted employment at its Columbus operations alone (in the old Curtiss-Wright and Lustron plants) from 1,600 to more than 8,000. By midsummer that figure will be about 17,000.

If past promotion rates hold up, that means management will have to pick about 700 more supervisors—from first-line or lead-man positions up to the foreman level.

It's easy to see the possibility of making mistakes when you promote that many people. Besides, some of them will have to be relatively new employees who haven't been around long enough to be judged properly by those above them.

From long experience, North American is sure it can hold its mistakes in personnel to a minimum by using its special promotion scheme.

• **How It Works**—At the base of the system are the supervisory selection boards—one at each plant. These boards meet about once every two weeks for half-day sessions, during which they fill whatever supervisory jobs are open. On the board at Columbus are two permanent members—the factory manager and the industrial relations head—and two to four rotating members.

Each month the board gets a list of

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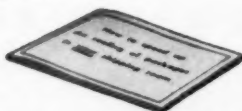
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the coming month's personnel requirements from general foremen. Against that, it sets a second list—the names of employees who have been nominated for promotion.

To get on this second list, an employee has to (1) be recommended by company job analysts, (2) be chosen by supervisors in his own department, or (3) nominate himself. (Actually, few employees nominate themselves; most of them start up the ladder on recommendation of their bosses. In North American's Los Angeles plant, 75% of the nominations come from supervisors, 20% from job analysts, 5% from the employees themselves.)

• **Scoring**—When the board has its two lists together, evaluation of each candidate begins. This evaluation is carried out on a detailed point system. There are four main tests: (1) background and experience, (2) rating by fellow workers, (3) rating by supervisors, and (4) educational background plus job-knowledge tests. Points are allocated so that these four tests carry about equal weight in the final evaluation.

To rate a candidate, three or four coworkers are chosen to fill out detailed questionnaires provided by the company (they don't sign the forms). They cover the man's ability, his drive, and whether he's generally well-liked. Two of the man's supervisors rate him on the same qualities plus a few others, such as job knowledge and cost consciousness.

The board doesn't interview the candidate personally, but when a supervisor's rating doesn't jibe with the others, he gets a chance to explain why.

When the evaluation is completed, the board totes up the score. In 95% of the cases, the top man gets the job. (A few have to be rejected because of physical disability or some similar reason.)

• **They Like It**—North American first started its promotion system late in 1942 at its Dallas plant (since disposed of). In 1944 it made the scheme companywide.

• **Extra Dividends**—The plan has two other advantages to an accordionlike company such as North American, which expands and contracts rapidly. First, it can be used in reverse to pick out who is to be downgraded or laid off in a period of retrenchment. Second, it can be used to pick top-scorers for special jobs. North American used it to choose 22 men for a training trip to Los Angeles when it converted its Columbus B-29 production line to F-86 jet assemblies.

Then, too, department heads don't have to bother with the details of running their own promotion systems. And the company is always a month's jump ahead of promotion needs—a big factor when you're expanding fast.



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A packer seldom can store anywhere near the number of cans he will need for the season ahead. So the instant crops are ripe, he wants empty cans streaming in one door while filled cans go out the other. Any slip-up in timing might mean the spoiling of a valuable crop.

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Our work starts almost a year ahead when field men check packers' estimates to learn how many cans will be needed for each crop. All during the growing season, our economists and other specialists keep a sharp eye on market conditions and weather trends that may affect the size of a crop or its ripening dates—and require a quick revision of can-making schedules.

Meanwhile, Continental production people are making certain that the Continental can plants will have the steel supplies, machines and workers needed to meet forecasted demands. Freight cars, motortrucks and shipping, too, must be provided . . . so that when the go-ahead signal comes, the billions of cans will reach packing centers right on time.

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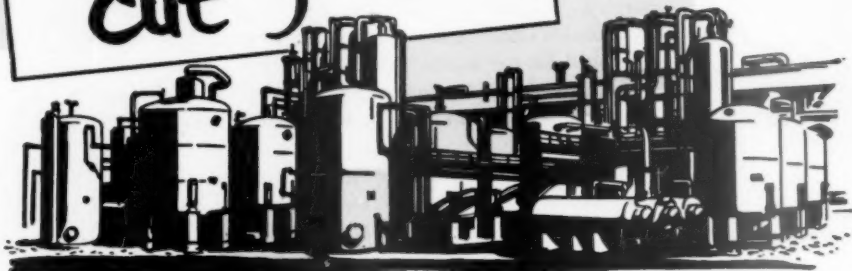


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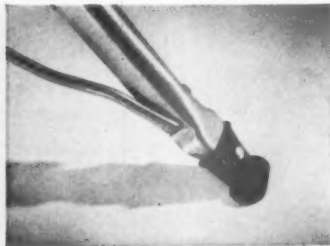
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## TRANSPORTATION



NEWEST RIVAL for Ford, Plymouth, and Chevrolet is this Willys Aero Wing, first offered as a two-door sedan. It means . . .

## Willys Is Back With a Full-Sized Car

**This week's unveiling, delayed by supplier's strikes, fulfills the yearning of Ward Canaday to buck the Big Three.**

In a day when the auto industry can't even do much restyling of old models (BW—Nov. 17 '51, p. 21), the birth of a completely new passenger car is news. This week's headline birth notice is for the Willys-Overland sedan—the company's first conventional passenger car since the American yielded to war conversion in 1942.

Birth of the new Aero Willys was attended by labor troubles: strikes at a supplier's plant (BW—Dec. 8 '51, p. 28). The unveiling had to be postponed first from Nov. 25, then from Dec. 2, and finally till after the holidays. The strike held up production so there weren't enough cars for all of the 2,000 dealers' showrooms and the 70 or so distributors.

• **A Year for Tooling**—Even with the delays, Willys-Overland Motors, Inc., performed quite a feat in getting the

new car to the market within a year of the start of tooling. Until the supplier's strike, the production line was rolling smoothly at about 150 cars a day (about 25% of capacity at the Toledo plant).

The Aero Willys isn't displacing the company's line of Jeep-type vehicles. Toledo can turn out 1,000 of the Jeep family each day, although it is far short of that pace now. About 45% of Jeep output today is for defense and defense-related markets.

Willys currently employs about 10,900 workers, expects to add 750 or 1,000 on a second shift. Some of these will be in Los Angeles, where Willys is also retooling its Maywood plant to build the new sedan.

• **Time Ripe?**—Ward M. Canaday, president and chairman, and his lieutenants realize they're flying in the face of provi-

dence—and a generally draggy sales market—in bringing out their passenger car at this time. They have two reasons for doing it:

• They're confident it will sell. Canaday feels there's room for a lighter car with big-car comfort in the low-priced field. He was fond of the American, which got into production in 1940 but never had a real chance to catch on. In fact, he still drives a 1942 American. For years, Canaday has wanted to get back into the passenger car field.

• They had been promising dealers since 1946 that there'd be a line of passenger cars to sell. Jeep-type vehicles touch only 10% of the market, and one-third of that is in rural areas. Since the bloom faded from the Jeep and Jeepster, especially in city regions, dealers have been insisting more loudly on a chance to go after the big 90% of the market.

There'll be some catches in the shift in marketing, as far as the dealers are concerned. Up to now the dealers have

a message for everyone concerned with critical metals, in and out of government.

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REAR VIEW shows low silhouette, wide body, and expanse of rear window. Gas tank filler cap is placed at right of license plate, for easier access from either side.

been selling strictly utility vehicles with unique characteristics. They've been saving money by staying off the high-rent main streets. Now they'll have to move back to "automobile row" and set up glamorized showrooms.

• **False Start**—Willys thought it had a passenger car for its dealers in 1948. In fact, it was ready to retool, then retreated because of the financial condition of the company. Renegotiation of \$800-million worth of war contracts had left only \$10-million to cover depreciation, profit, and working capital—not enough to build new cars. So the Jeep variants were featured instead.

Since then, the company has been operating at a profit. It is out of debt, has a modern plant, \$60-million capital, and a \$250-million backlog, mostly military orders. So Canaday didn't let Korea stop the plans for a second time. It was costing a lot to update the 1948 design; it would have all gone down the drain if development had been halted a second time.

Willys has spent, or is committed to spend, \$10-million for the new line of passenger cars. The introductory model is a two-door sedan, but Willys can also jump in later with a four-door sedan and a hard-top convertible. And all the tooling is on hand for a station wagon. The export model will replace the standard six-cylinder engine with a four-cylinder F-head unit.

• **Five-Year Haul**—The story of the Aero Willys starts in 1946. At Canaday's urging, management invited C. R. Paton, Detroit automotive engineer, to round up his ideas about a brand-new car. In 1948 Paton gave his answer to Canaday, who by then was president and board chairman. Canaday was impressed. But before he gave the word for design-

ing to go ahead, he went off to Italy to study foreign cars and talk with Italian designers.

Meanwhile, Delmar G. "Barney" Roos, the company's engine expert, was working on a powerplant. He had designed a four-cylinder F-head for the Jeep after the war. Now he drafted a six-cylinder F-head engine rated at 90 hp.

The F-head engine isn't new to the industry. Roos' Jeep engine was antedated by the one in the Essex of long ago. And two British cars, Rolls-Royce and Bentley, currently use F-head engines. The F-head differs from other engines in having its exhaust valve down in the block instead of in the head. It costs more than the L-head to produce, but it's more compact.

• **Ready to Go**—Canaday approved Roos' engine in March, 1950. The engine was tested in June and had proved itself by July 24, when Canaday and his aides first viewed complete drawings and a clay mockup of the car. Exterior design was frozen in August, 1950; all details were cleared by the board of directors on Oct. 23, 1950.

The new car was completely divorced from the Jeep line. It was tooled up from scratch. And in less than a year, the first car rolled off the assembly line. That was on Oct. 4. Delivery to dealers started Nov. 1.

• **The Car**—The new Aero Willys is a full-size car. It's longer than the Nash Rambler, shorter than the Ford, Plymouth, Chevrolet, and Studebaker. Willys claims it's roomier than its rivals; seats are 61 in. wide, 3 in. more than the average of other cars in the field.

The field is roughly the Ford-Chevrolet-Plymouth price level. OPS set factory wholesale prices of \$1,310 to \$1,468



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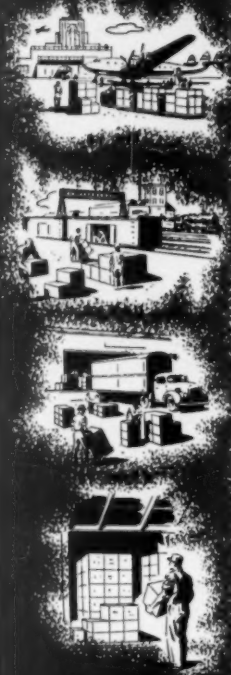
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for the various Aero Willys models; retail prices start at \$1,718, f.o.b. Toledo, for the two-door model.

The new car features economy: 35 mi. to the gallon at 30 mph., 17 or 18 mi. to the gallon at 80 mph. That's with overdrive, which is optional equipment.

• **Light But Tough**—Economy of operation is gained by slashing dead weight—which, incidentally, also conserves Willys' allotted metal. The Aero Willys weighs in at 2,560 lb. It weighs only 28.4 lb. per horsepower.

One big saving is in frame. The new Willys really has no frame. The body is welded directly to the longitudinal channel irons that support the running gear. The car is rugged, though.

• **Test Unrehearsed**—Two reporters attending a press preview in Toledo got a convincing demonstration of the car's ability to take punishment. The Aero Willys in which they were riding was stopped by a traffic light. Another, much heavier car (driven by a woman) crashed into them from the rear at an estimated 50 mph.

The Willys went flying into a deep ditch, winding up on its nose. Both front and rear were badly damaged, yet the doors still opened, and the reporters crawled out unhurt. The radiator and front end of the heavier car were damaged even worse than the Willys.

"It was a completely unrehearsed test," Willys people assured the reporters.



## Bread in the Sky

Wholesale air lift of bread to Virginia is working out well for Arnold Bakeries of Port Chester, N. Y. Twice a week, National Airlines totes a shipment to Fancy Foods of Virginia, at Norfolk, Va. Fancy Foods distributes the bread through Virginia by truck. Transportation costs (the wholesaler buys f.o.b. Port Chester) are passed on to the consumer as a 2¢ price premium over the New York tag.



## The Steel that took the cussing out of changing an "Alligator's" Teeth



● Deep in the coal mines, mechanics had the knuckle-busting job of loosening the worn set-screws that hold coal-cutting bits in the endless chain of mechanical coal-mining machines . . . or "alligators". The grinding abrasion of coal and rock quickly wore off the square heads to round heads.

The Bowdil Company makes most of the cutter chains used on leading makes of coal-mining machines. They asked Republic Steel for a solution to the problem of the round heads on the "alligator".

A Republic Field Metallurgist recommended that Bowdil switch to a Republic *Carbon-corrected* Cold Drawn Alloy Steel Bar for the set-screws. They did . . . and there's been less cussing in the coal mines . . . plus a great reduction in the amount of high-priced time wasted in trying to get a grip on worn set-screws.

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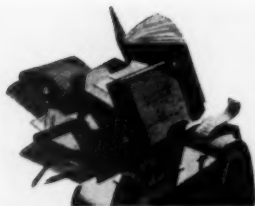
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"The wealth of products and machinery displayed at the B.I.F. was overwhelming," said Arthur R. Bink, of American Type Founders, upon his return from last year's Fair. "The value of such an exhibit—aside from its contribution to international trade and a closer international business relationship, is beyond one's expectancy. As a businessman, I rate the B.I.F. among the best of industrial and professional exhibits." The 1952 B.I.F. will be held May 5-16. For details write or telephone your nearest British Consulate or: Commercial Department, British Embassy, Washington 5, D.C.

# COMMODITIES



SYMINGTON leaves RFC with one problem unsolved: how to get...

## More Tin for Industry

Symington's price war didn't set with either the producers or the State Dept. Now an overhaul of the situation will result in higher prices for producers, more tin for the trade.

When W. Stuart Symington set out to beat down the world tin price by halting U.S. purchases, he guessed wrong on two counts: (1) The producers turned out to be a lot tougher than he figured; and (2) his price war was unpopular with the State Dept. And Symington didn't have enough tin ore reserves to hold out against the opposition.

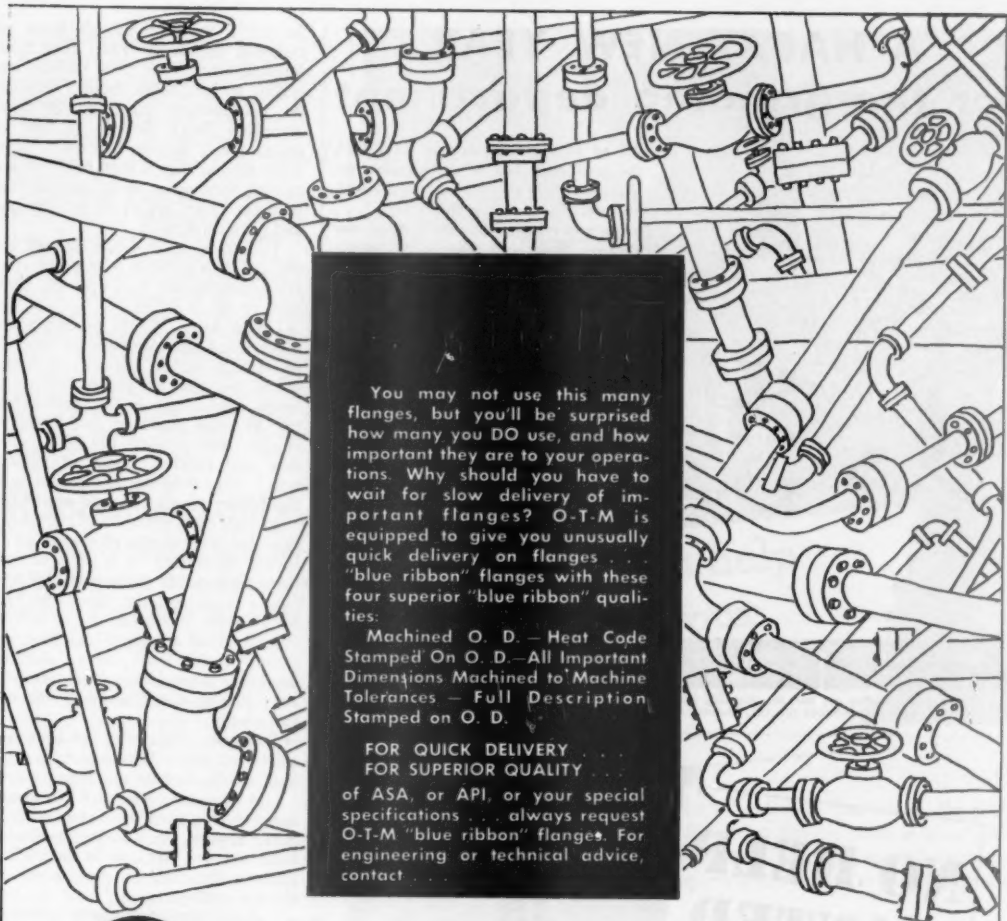
Symington declared war on the world tin producers as head of Reconstruction Finance Corp., sole buying agent for tin in the U.S. He's stepping out as RFC administrator without reaching any kind of agreement to replenish declining U.S. stocks.

• **No Connection**—President Truman denied that his acceptance of Symington's resignation was linked to tin. But by midweek it was a certainty that Symington's tin policy is in for a thorough overhaul, and that out of the

overhaul will come higher prices for producers and more tin for U.S. users.

Symington took the spotlight when he announced last year that RFC would stop buying both the metal and ore concentrates (BW-Aug. 4 '51, p. 110). The price dropped from \$1.90 per lb. in Singapore to around \$1.08. He justified the boycott on the grounds that the price was really set by a cartel of producers and that it had been jacked up beyond all reason from the pre-Korean price of about 75¢ per lb. He told Congress that paying the world price was merely an indirect way of subsidizing the governments of producing countries—Bolivia, the Malay States, and Indonesia.

• **No Withdrawal**—But the Bolivians, who had been supplying the government-owned smelter at Texas City with concentrates, didn't fold up. They accepted an interim offer of \$1.12 per



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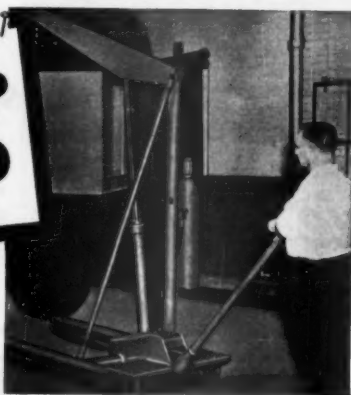
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lb. on a month-to-month basis and curtailed deliveries. Then they found financial help. New York bankers were willing to lend them about 75¢ per lb. on concentrates piled up at South American docks. So they've kept the mines going despite lack of a buyer. They figured that if they held out long enough Symington would have to come to them. They set \$1.50 as their price and have stuck to it.

The trade itself would sooner have the tin than quibble over a few cents. It's willing to pay \$1.25 per lb., would even go up to \$1.30.

• **Up in Arms**—World producers have made a red hot international issue out of RFC's cartel charges. Indonesia points out that its government—not a cartel—gets almost all the revenue from tin. Malayan producers also denied the charges and accused the U.S. of "a new and reckless threat of exploitation." The Bolivian ambassador called the RFC policy "economic aggression."

Against this storm, RFC argued in vain that it's a matter of economics and should be settled on a basis of costs, taxes, and profits. Its experts will show figures to support the claim that \$1.12 for Bolivian producers is fair and reasonable. Half of their \$1.12 offer, they claim, would cover labor, materials, overhead, depreciation, and transportation—leaving the other half for taxes and profits.

• **Stalemate**—This offer has been open since last July. Repeated conferences have deadlocked around three issues:

• Producers wanted RFC to guarantee them a fixed percentage of profit. RFC insisted on lumping profits and taxes into one item, to be parceled out between the Bolivian government and the tin producers.

• Bolivian government spokesmen insisted that \$1.50 is needed to keep marginal producers in operation. RFC pointed out that Bolivia already allows varying rates of exchange in converting from dollars to bolivianos to take care of marginal operations. It thinks the problem is a domestic one.

• Producers argued that if tin had gone up as much as lead and zinc it would be selling today for \$1.63. RFC countered that \$1.12 would be almost a 50% price rise over pre-Korea, while the price of goods Bolivia buys in the U.S. has gone up only 28%.

• **Other Sources**—RFC experts don't have any such definite ideas about tin produced outside Bolivia. A government mission recently returned from Malaya and Indonesia, where producers and government officials offered proofs of rising production costs. In particular, they defended the traditional Singapore market as establishing a legitimate, free world price.

The State Dept.'s drive to end the RFC boycott started shortly after the

mission returned. Secretary of State Acheson talked with Symington, stressed the importance of augmenting Britain's dollar supply by renewing tin purchases in Southeast Asia. And Winston Churchill is expected to tighten the screw in his talks with President Truman.

• **Stockpiles Dwindle**—In the meantime, Defense Production Administration is watching supplies dwindle with growing alarm. Supplies of raw tin going to industry from the Texas City smelter this quarter will be at the rate of 2,100 tons a month, compared with a normal consumption of about 5,300 tons. This supply will dry up as soon as reserves of concentrates are gone—perhaps in three or four months. The last contracts under which RFC was receiving concentrates—from Indonesia—expired at year's end.

## Rubber Aplenty

World surplus may come in 1952 when U. S. stockpiling ends. It's due to big gains in synthetic output.

Among major raw materials today, rubber is in a class by itself. In the midst of the materials famine, it's only months away from a world surplus. Soon after the U. S. stops buying for the stockpile—and that may be as early as Mar. 31, almost surely before June 30—the world will be producing more natural and synthetic than it has been using up to now.

Of course, demand will increase, too. It has been rising steadily since before World War II. In 1940 the world consumed 1.1-million tons; in 1951 it used more than 2.3-million tons. U. S. consumption followed the world trend in that period—it just about doubled.

Meanwhile, world output was also soaring. Last year the total, both natural and synthetic, was around 2.8-million tons. The difference between demand and production largely represents purchases for the U. S. stockpile. The size of that reserve has never been officially announced, but trade sources guess it's now about 850,000 tons of natural rubber and 130,000 tons of synthetic. Controllers even O.K.'d 10,000 tons for export in the first quarter this year, the first substantial export allowed since Korea.

• **Synthetic Growth**—For being able to use just about as much rubber as they want, manufacturers can thank chemical science. Rubber is one of the few commodities for which science has found a substitute that's superior for many uses.

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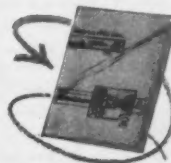
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ing importance of synthetic rubber in U.S. consumption of both kinds of the material:

Year	Tons of Natural Rubber	Tons of Synthetic Rubber	Percent of Synthetic Rubber
	(Thousands of Tons)		
1870	4	—	—
1900	20	—	—
1920	206	—	—
1940	649	3*	.4
1945	105	694	86.7
1946	278	762	73.3
1948	627	442	41.4
1950	720	538	42.8
1951	450*	780*	63.4*

\* Estimated

About 70% of all the rubber used in this country goes into transportation items, chiefly tires. U.S. rubber consumption doubled between 1940 and 1951, mostly because the number of autos and trucks on the highway increased so greatly. The average tire size also rose; postwar cars were heavier and needed bigger tires. More farm tires were produced, too, after the war. There was a wider use of rubber for such new products as upholstery, mattresses, soundproofing material.

• **Cold Rubber**—The synthetic rubbers are a large family. Nearly 700 of them have already come out of the laboratories, and there are more in the test tubes.

One development of the past three years is cold rubber, which is already the leading ingredient of automobile tires up to the 8.00 sizes. It gets its name from the fact that the polymerization of the butadiene and styrene takes place at 41F rather than 122F as in the case of GRS, the original tire synthetic. Cold rubber has a high resistance to abrasion.

Some natural rubber is needed for all tires, to keep the synthetic pliable during tire manufacture and to cement the layers. But the smaller tires contain sometimes as little as 2% tree rubber. Still more natural rubber is put into truck tires, where heat is a greater problem (synthetic rubber tends to run hot). And airplane tires are 100% natural rubber.

• **Uncle Sam's Role**—Synthetic rubber capacity is owned by the Reconstruction Finance Corp. The 28 plants include 13 copolymer plants for making GRS and cold rubber; two for making butyl, the inner-tube material; 10 for butadiene, one for styrene, one chemical plant, and a laboratory. By the end of 1952 RFC hopes to convert 75% of the copolymer capacity to cold rubber.

Most of these synthetic plants were shut down after World War II. They were hastily reactivated after Korea. Restrictions were clamped on the industry while the government rushed to build up a strategic stockpile of tree

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# Fine Finishes



**"... Industry can't go hog-wild, but there's plenty of rubber..."**

**RUBBER** begins on p. 89

rubber. These restrictions were relaxed on Jan. 1.

• **Few Restrictions**—That doesn't mean the industry can go hog-wild. The controllers are banking on industry to hold consumption of natural rubber voluntarily to 105,000 tons a quarter. And, since there isn't enough cold rubber to go around, companies are held to not more than 46% of this type in their total purchases of synthetics. No more than 14% of a small passenger tire can be natural rubber, and no more than 20% of a small truck tire.

With more rubber available than ever before, manufacturers expect U.S. consumption in 1952 to break the all-time record of 1.26-million tons two years ago. They think consumption may pass 1.3-million tons.

• **Wild Rubber Prices**—Pricewise, rubber has a lurid history, especially in the last 30 years. During this period the price of natural rubber hit a peak of \$1.25 a lb. and, only seven years after that, a rock-bottom 2½¢ a lb. Korea sent natural rubber from a dull 18¢ a lb. to 90¢ a lb.

The uptrend led the U.S. government to take over all American buying on Dec. 29, 1950. Tree rubber then settled back to a range from 8¼¢ in February, 1951, to 48¼¢ in recent weeks.

• **Steady Synthetic**—The synthetic product, on the other hand, has held fairly steady under RFC control. It sold at 18¼¢ during the last war, was hiked to 24¼¢ on Dec. 7, 1950, and to 26¢ last September. And there it stays. This price would be lower but for the high-cost alcohol plants RFC had to put back in service after Korea.

Synthetic rubber prices should trend downward, industry people believe. Operating costs are higher than pre-1950, and the price probably won't go back to the old 18¼¢ level. But you can expect to see 20¢ synthetic in the next few years.

• **Up to Congress**—Meanwhile, operation of the synthetic industry under government ownership is approaching a crossroads. The Rubber Act of 1950, which authorizes the present operations, expires June 30. Congress must decide whether to retain the 28 plants under RFC or sell them.

The plants cost \$750-million originally. They're earning a profit for the government now. For the fiscal year ended last June 30, RFC made nearly \$12-million on the operation, though it had spent \$204-million in putting idle plants back into service.

# new book explains

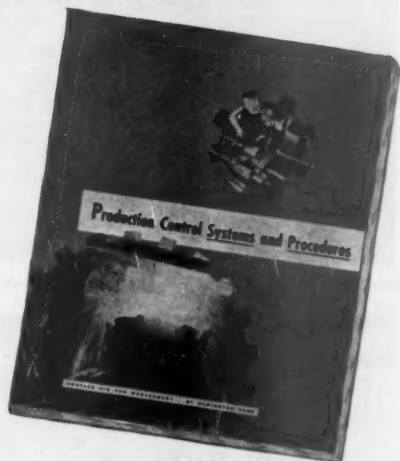
## Practical Production Control

Most of your manufacturing problems today can be summed up in two words — *materials* and *production*.

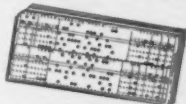
The answer to these problems lies in simplified and proved paper work systems. That's why we know our new book, "Production Control Systems and Procedures," can be a standard guide to material and production planning and control in your plant, whether it is large or small.

This book outlines actual case histories based on the vast combined experience of practical men who solved the complex production control problems of a regulated economy. These men now bring you, free, their analysis of simplified means for coordinating men, materials, and machines.

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... How to detail advance requirements of parts and raw materials for effective procurement action — with **PUNCHED-CARD TABULATION SYSTEMS** that "explode" bills of materials mechanically, quickly; and also provide the facts needed to prepare **CMP** allotment applications.



... How to maintain coordinated control of requirements, advance ordering, receipts and inventory of each item of parts and raw materials — in **KARDEX VISIBLE CONTROL SYSTEMS** that flash positive warning of threatened shortages or overstocks, so that prompt corrective action may be taken.

"Production Control Systems and Procedures", Form No. X1268, will show you how these proved ideas can help solve your production control problems. For your free copy, phone our nearest Business Equipment Center. Or write to Room 1571 Management Controls Reference Library, Remington Rand Inc., 315 Fourth Avenue, New York 10, N. Y.

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## NAMES & FACES



HECTIC DAY is normal for Bunny Ward. Here, she appraises styles with president of Stratford Neckwear Co. (left), Macy's buyer.



JACKETS are a big part of her job: She makes a salesman demonstrate a new model at Puritan Knitting Mills. Although she covers the whole men's wear field . . .



TIES are her specialty. There's no doubt about it . . .

## Bunny Ward Does a Man's Job at Macy's

Bunny Ward, the men's wear stylist for the R. H. Macy corporation, wears Sally Victor hats and moves around in some of New York's best social circles. She also knows more about men's clothes than men do. "And what's so funny about that?" she asks, "Ever been to Seventh Avenue and seen all

the men there making clothes for women?"

This month, as the nation's men's wear buyers converged on 200 Fifth Avenue to buy their spring stocks, she was the only woman making the decisions on men's suits. Mrs. Ward does not go wrong very often—she's had

this job with Macy's for about 20 years.

• **Education**—Mrs. Ward was born in England, where it is well understood by both sexes that men are the peacocks of the breed. When she was 18, she already knew much about men's clothes—just by sharing in the family concern over the wardrobes of her three broth-

# Yes, ready to bake!

What a boon to the tired housewife who wants to serve a delicious dessert at dinner only an hour away! With Town Square Frozen Deep Dish Apple Pie ready to pop into the oven, her problem is quickly solved. There's nothing to mix or add; no pans to wash . . . the package itself is the baking dish!

Packaging these luscious pies was a problem, too. Shellmar solved it with a moisture-proof cellophane overwrap for protection . . . a true-to-life photograph for eye-appeal . . . easy-to-follow baking directions . . . and a list of mouth-watering ingredients.

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## Gunnison announces an "L" shaped home!

Out of tomorrow, GUNNISON brings you their latest . . . the *Catalina* . . . to take its place alongside the new '52 series of Coronado and Champion Homes! All GUNNISON HOMES are designed to sell in the \$7,000 to \$12,000 price range . . . America's mass market!

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and "Champion"—F.M.  
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NEW ALBANY, INDIANA

**"... I've never seen such  
tailcoats in my life . . ."**

BUNNY WARD begins on p. 94

ers. She'd been to finishing school in Ascot and art school in Paris, and she'd made up her mind to be a writer.

She looked for a writing job in London and found one, writing men's fashions for the Fairchild Publications. This was in 1925. The Prince of Wales was flying high in those days, and London was giddy with social activity. Then as now, Bunny was in the thick of the fun.

"Englishmen know how to dress for an occasion," she says now, a trifle wistfully. "I go to the opera here in New York, and I can't believe it. I've never seen such tailcoats in my life."

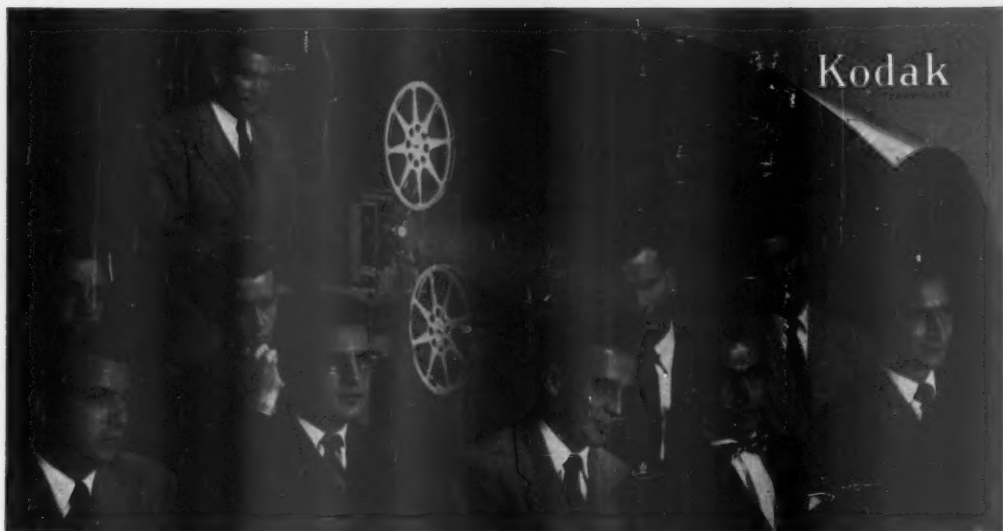
• Macy's—By 1930 the picnic was over, all over the world. Mrs. Ward had come to America looking for a job. Through mutual friends she met Jack Straus, president of Macy's, asked for and got the job she still has. Looking at her festive costume, he first suggested women's wear. But Mrs. Ward had other ideas. She directed Mr. Straus' attention to the statuary of ancient Greece. That was how a man was supposed to look—like an upside down triangle. Yet somehow, the American men's wear industry had succeeded in making men look like hens.

She intended to take a hand in changing the male American look all the way down to the lower income brackets. In this enterprise she needed Macy's buying power and Macy's preoccupation with its own brands, and she knew it.

• The Hurdles—She was not long in discovering an implacable enemy in the American woman. More than 75% of men's accessories are sold to women—an even greater percentage in department stores—and women are scared to death of anything different when it comes to clothes for their men. Stores like Wallach's and John David, which sell primarily to men, can put over a new style much better than a department store like Macy's.

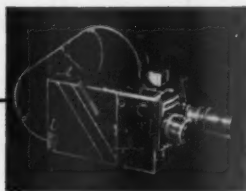
She was to find, too, that she was dealing in a business immensely sensitive both to weather and to fluctuations in the business cycle: Women as a rule buy their clothes twice a year, generally in advance of the season; men wait until it's been blazing hot for at least a week before they rush out and buy a summer suit. And in America, contrary to the British custom, the man is the first member of the family to go without new clothes when times get bad.

• Crusader—Mrs. Ward went ahead with her pioneering just the same. She is the lady you have to thank for the



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provide for anticipated demands, yet provide adequate electricity for expansion of industrial installations.

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**"... more than anyone bargained for—culminating in the zoot suit ..."**

BUNNY WARD begins on p. 94

tropical worsted dinner jacket, now correct for year-round wear. She put that over 13 years ago.

• **Secret of the Ties**—She is proudest of all of what she has done with Macy's dollar ties and 50¢ socks. When a buyer gets a load of ties to sell for \$3.50, he's bound to get pretty good style and design if he knows how to pick them out. But Bunny's bailiwick is under that price range, and her secret weapon is a roll of striped silk she had made for her in England.

"That's got every school tie and regimental stripe in the British Empire—in other words, every good stripe design that ever was. If you just keep changing the colors on these, you can't go wrong." A good number of the 3,000 dozen red stripe ties Macy's 34th Street store sells each year get their start in life with a scratchy sketch in Mrs. Ward's small untidy office.

In fact, you'll find her work throughout Macy's men's stores—in belts, suspenders, shorts, socks, jewelry, sportswear.

• **Zoot Suits**—Changes in men's styles—suits, in particular—are slow. There's one going on right now. Mrs. Ward got her inverted triangle look—more than anyone bargained for—culminating in the zoot suit. But now the fashionable look is narrow. In England, where it originated, it is even narrower, with very tight trousers and even collars on waistcoats. ("You may as well face it," says Mrs. Ward. "The significant style trends are always set by people with leisure.")

• **After Hours**—Mrs. Ward knows her business. But if you met her after hours, you'd have to think up another topic of conversation to hold her interest very long: She is that pearl among high-paid, high-powered women executives who doesn't carry her job around with her after nightfall. Her husband is a West Pointer, Colonel Charles Stewart Ward, a gentleman of—needless to say—impeccable tailoring. You're apt to run into the pair anywhere the rich and playful gather—at Belmont, or the opera, or a charity ball. While Bunny doesn't talk shop, she keeps a practiced eye on what the custom-tailored man of leisure wears—and she uses what she sees in her business.

Shortly, Mrs. Ward may be using this information for herself rather than for Macy's. She plans to leave the department store some time in the next few months and set up a men's wear shop of her own.



## "Here's where SPS can save us money"

*"We'll save time using SPS socket head screws on these blind assemblies. We'll get a better design, too. For one thing, we won't have to worry about spacing the screws for wrench clearance."*

Manufacturers who start using SPS fasteners for appearance's sake keep on ordering them for economy's sake.

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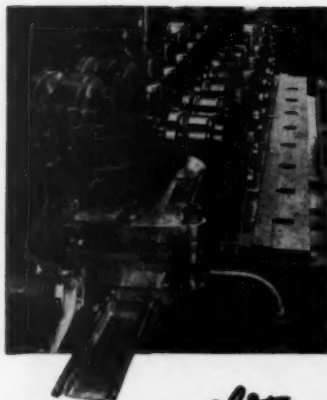
can still save by using smaller diameter Unbrako Screws.

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If you have a fastener problem, SPS will welcome it. Call your favorite industrial distributor, or write STANDARD PRESSED STEEL Co., Jenkintown 57, Pennsylvania.

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## REGIONS



**NEW LEADER** Walter Raleigh (right), executive vice-president of New England Council, takes over from Dudley Harmon to wrestle with . . .

## Shooting New Life Into

Someone has suggested that it might be more descriptive if the New England Council were to change its name to the New England Conscience. For, like a conscience, the council is an arbiter.

A regional organization composed of New England's political leaders and top business executives, it carries out few projects itself. But it works tirelessly behind the scenes to stimulate activity that promotes the economic progress of New England.

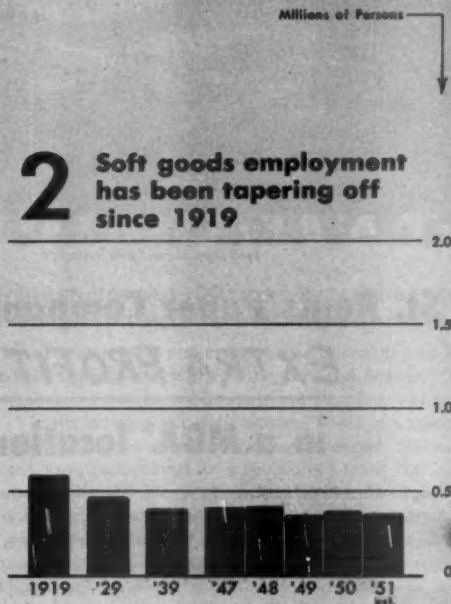
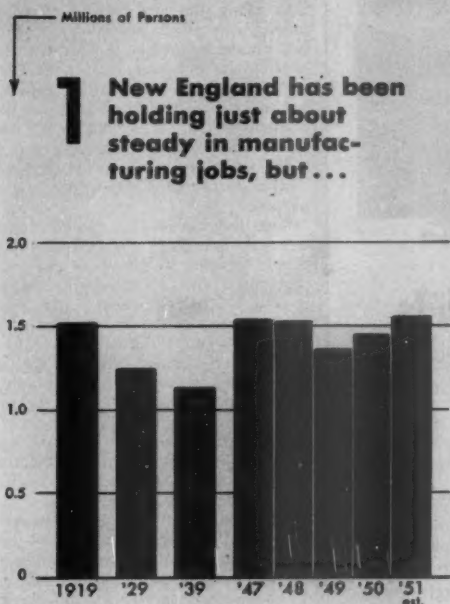
The background of problems against which the council works embraces the whole of New England. One of the toughest of them—the need to offset the decline in New England's textile and shoe industries by building up industries in hard goods fields—is highlighted in the chart (page 101).

• **A New Era?**—Now the council itself has a new conscience. For a recent change in leadership may precipitate a trend already evident—toward closer participation in interstate and federal government affairs.

On Jan. 1, stringy, 6 ft. 3½ in. Dudley Harmon—who, says New Hampshire's Gov. Sherman Adams, was synonymous with the council—retired as executive vice-president, a post he had held since the council's beginning 26 years ago. Coming into the front office to fill Harmon's shoes is 39-year-old Walter Raleigh, native New Yorker and lawyer, with a long string of community relations and industrial development credits in Connecticut behind him.

With this administrative shift an era in the council, possibly in New England, passed. For the change signifies more than just a transfer of leadership: It means a marked shift in abilities and background, which will have a marked effect on the council's operations.

• **The Trend**—Harmon had a canny understanding of the New England character with its strong sense of regional loyalty. This, coupled with clear administrative vision, enabled him to draw out the best parts of the New



## OLD PROBLEM

which gave birth to the council 25 years ago and still plagues New England—how to maintain steady level of employment in the face of migration of textile mills southward by . . .

# New England's Industry

England character and weld them into successful regional programs.

New York born Raleigh, on the other hand, brings to the council fresh ideas and a solid footing in the direction the council may find itself heading in the next few years—toward extending its interests beyond the geographic boundaries of New England.

This trend showed up dramatically not long ago, even before Harmon stepped down. For on Dec. 14 the council sent a letter to New England's Congressional delegation urging it to push for federal aid to develop what are said to be vast deposits of manganese ore in northern Maine. A few years ago such a petition for federal aid to New England by an official of the council, or any other New Englander for that matter, would have been unthinkable.

Harmon saw this shift coming. It will call for a tight course, he said, through highly controversial waters in New England, where rugged Yankees snuggle the theory that "New England can take

care of itself; you look after your own neck of the woods."

• **Strength in Union**—New England's spirit of unity, which has shown up in a will to work for the common good of the six states, even though private and political interests may clash state by state, has been the major source of strength for the council—the only one of its kind in the country to have held together and flourished for a quarter of a century.

Since 1925 the council has met four times a year to wrestle with the region's economic and industrial problems in Yankee town-meeting fashion. When it sees need for improvement in a specific industry or area, then like a conscience it prods New Englanders unremittently to get them to see the need and do something about it themselves.

To anyone who knows the New Englanders' chariness of change for change's sake, this may sound like a monumental task, even for a conscience. But what New England stands for, says Walter H.

Wheeler, Jr., council president, is "true conservatism . . . a careful weighing of all ideas and a willingness to accept sound changes" (BW—Feb. 17 '51, p. 77).

• **No Accident**—There are good reasons why the council flourished, even though scoffers said it wouldn't last three years. For one thing, it has always had the active support of New England's businessmen. In fact, most of its more than 2,500 members are New England companies, which supply the direction and financing.

Then, too, the council has been supported by the region's political interests, for obvious reasons. The group was organized in the first place by the six New England governors—inspired by a group of Bostonians. That was in 1925, in the backwash of the cotton mill landslide to the South, when it looked as though New England's economy was coming apart at the seams. More than 700 businessmen, bankers, and civic leaders answered the call, met to see what could be saved of the pieces.

• **A Switch**—After having been organized by the six New England governors, the council turned around 12 years later and organized the governors them-



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selves—into the New England Governors Conference. The conference meets regularly for action on problems of mutual interest, such as flood control, forest fire prevention, and the like.

The crisis that brought the council into being—the movement of textile mills southward, out of New England—is a problem that has plagued the area ever since. For years the council has urged the governors to form a committee to uncover the "real facts" of the textile problem. At the last annual conference in November, the governors finally acted, created the New England Textile Industries Committee for this purpose.

• **Get the Facts**—The council found out early that there was no use getting people together to talk about economic problems until the facts were clear. So it sold Boston University's bureau of business research on the idea of compiling a statistical abstract on 175 New England cities and towns. For its part the council guaranteed to sell enough copies to pay for the job. The abstract is now in its fifth edition.

Again, the council inspired publication of the fat and invaluable Directory of New England Manufacturers—to help sell New England-made products.

Another important council function is to act as an intermediary, or information channel, between government agencies and New England businessmen.

The council devotes a large part of its energy to luring new industries to New England. Its Industrial Development Committee, composed of 40 industrial development managers of New England railroads, public utilities, state industrial development commissions, and industrial real estate people, meets every two months to discuss ways to attract new businesses to the area.

• **A Lot With a Little**—Considering the variety and scope of its operations the council runs with a surprisingly small staff. Thirty-one people man its headquarters in Boston's Statler Building, and the group functions on a modest budget of \$220,000 a year. Financing comes from its membership, and dues run from \$30 a year for an individual to as much as \$3,500 for a large company.

The officers of the council represent a cross-section of New England industry. Council president, Walter H. Wheeler, Jr., for instance, is also head of Stamford's Pitney-Bowes, Inc. Other officers are Robert P. Tibolt, vice-president of Eastern Gas & Fuel Associates, treasurer; H. Ladd Smith, research director of Vermont Marble Co., secretary; and Walter Raleigh, executive vice-president.

A staff member manages each of the seven working departments: executive, agricultural, industrial, membership, recreational development, transportation, and public relations.



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**TRIPLE SAFE** — Plainly visible red dot indicator shows when it's cocked; safety must be depressed before and during squeezing of main trigger; permanently attached safety shield must be compressed against work before Stud Driver will op-

erate. Trigger can't be accidentally tripped. Slight recoil. Low noise level.

**WIDE VARIETY OF STUDS** are available for every fastening job. Genuine Remington studs are trademarked for user's protection. Pull-out resistance as high as two tons in good concrete, depending on stud used. Cartridges are available in 5 power loads covering practically all fastening needs.

**UNIQUE, FAST ASSEMBLY OF STUD AND CARTRIDGE** — Tough plastic heel cap permits lightning assembly of any cartridge with any stud, identifies power load, protects head and thread of stud during driving.

**PRICE** for Model 450 Remington Stud Driver complete in rugged steel carrying case—only \$119.50.

## How to operate the Model 450 Remington Stud Driver



Hand-assemble stud and power cartridge, load as unit in easy-to-open Stud Driver, case.

Press loaded Stud Driver firmly against working surface, depress safety button, pull trigger.



Explosive charge imbeds stud solidly. Open Stud Driver with twist of the wrist, eject empty shell, load again. Whole job takes seconds!

## Speeds all these jobs . . . and many more

1. Hanging steel sash and door locks to concrete and brick.
2. Anchoring wood plates to concrete floors and ceilings for setting partitions.
3. Fastening wood furring strips to concrete for attachment of metal lath.
4. Anchoring suspended ceilings, sprinkler systems and lighting fix-

- tures to concrete.
5. Attaching conduit and panel boxes to steel and masonry.
6. Anchoring light machinery to concrete pads.
7. Erection of signs, awnings and venetian blinds on steel or masonry.
8. Hanging radiator housings to concrete or brick.

## MAIL THIS COUPON TODAY FOR FURTHER INFORMATION

Remington Arms Company, Inc.  
Industrial Tool Division  
930 Barnum Ave., Bridgeport 2, Connecticut

I am interested in obtaining detailed information on the Model 450 Remington Stud Driver.

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"If It's Remington—It's Right!"

**Remington**





**BREAKING IN** "Jack" White, center, broke the way for the businessmen's regime when he became mayor in 1949. In 1951 four councilmen were elected: left to right, T. N. Tucker, Alvin Schmidt, White, George Roper, Sam Steves.



**MOPPING UP** Businessmen rounded out their control last November, electing four more councilmen to join the other five. Left to right, they are: Harold Keller, Ruben Lozano, Dr. Nelson Greeman, Mike Cassidy. These . . .

## Businessmen Take Over San Antonio

Nine out of 10 businessmen are convinced they and the boys at the Chamber of Commerce could run their cities better than the local politicians—if they could only take over. In San Antonio, Tex., they're getting a chance to prove it.

On New Year's Day the fast-growing Texas city installed its first city manager, Charles A. Harrell (picture, page 106). Harrell is backed by a council of eight businessmen and one retired army officer (pictures). This businessmen's invasion of the city hall climaxed a 12-year struggle by the boys at the chamber.

Their camel first got its nose in the

tent in May, 1949. They elected A. C. "Jack" White, now a councilman, as mayor on a charter-reform platform. Last May they got four more men elected as commissioners. That completed their sweep of the existing mayor-commission government.

Next they persuaded the voters to adopt a new city manager charter by a two to one margin last October. And in November they elected all their candidates to the nine-man council under the new charter.

• **Had to Be Sold**—This was not a self-generating reform touched off by spectacular corruption. The voters had to be aroused through a combination of

political and business tactics. They had to be stirred out of their preoccupation with personal affairs.

San Antonio was fast outgrowing its old commission form of government, the Chamber of Commerce felt. Between 1940 and 1950, San Antonio gained more than 60% in population—the basis for the chamber's slogan, "The Nation's Fastest-Growing Major City."

• **Old Setup**—The city was still operating under a 1914 charter. It had a mayor and four commissioners who doubled as the city council and as the heads of the five administrative departments. Each council member thus ap-



# Electricity... MULTIPLIER OF MANPOWER



**ELECTRICITY . . .**  
**Keystone of America's**  
**Industrial Might**

**BABCOCK  
& WILCOX**

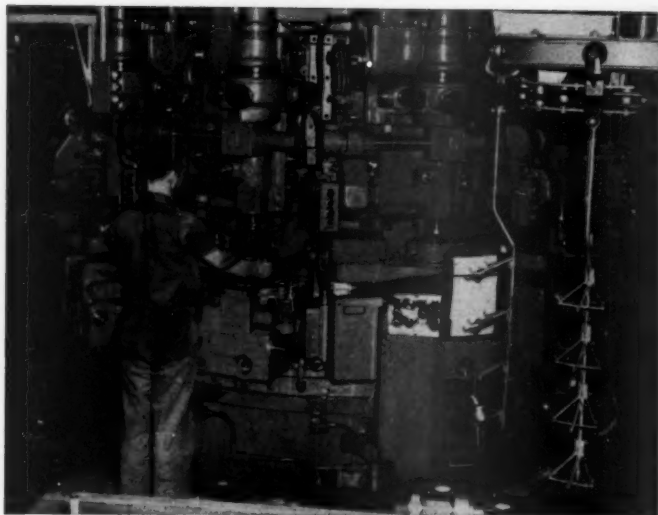


With less than 7 per cent of the world's population, the United States produces over half of the world's goods. Electricity is the **BIG** reason. Its present extensive use by industry makes available a manpower labor-equivalent exceeding 15 times the entire U. S. population! With more than 14,000 kilowatt-hours at his fingertips, every worker now employed in the manufacturing industry has over 190 invisible helpers with him on his job the year long.

Yet with all its endless tasks, electric power currently averages only about one-half of one per cent of the final cost of finished goods. The nation's power companies have maintained this amazingly low price structure while all else has spiraled to record high costs. Actually, this vital commodity in factory, farm, mine, and home costs less than a few years ago.

In these days of accelerated production, it is well to remember that materials plus manpower *multiplied* by electric power is the key to America's strength and security.

*One of a series of advertisements sponsored by  
The Babcock & Wilcox Company to bring the facts about electric power to the public.*



## **PRESSURIZED AIR CONDITIONING ALLOWS ONE-A-MINUTE ASSEMBLY OF TRANSMISSIONS**

### **Ever thought how conditioned air might help your business?**

Automatic transmissions for your automobile are precision-built. They have highly specialized mechanisms. Close tolerances are a must. Because these complex machines are so sensitive, utmost cleanliness is stringently stressed throughout modern air conditioned plants in which they are made. Even a minute particle of foreign matter might render finished units inoperative.

Each transmission may contain well over 700 pieces. These move swiftly along multi-aisle production lines where drilling, spot facing, chamfering, reaming, tapping, boring and other precise operations take place on specially designed equipment.

Completed transmissions are then assembled and tested at the startling rate of one a minute in a pressurized air conditioned room.

Air conditioning and refrigeration, too, play an increasingly important part in today's industry. Businesses of every size are constantly finding new uses for both. There are countless applications ranging from air

conditioning for comfort cooling to refrigeration for intricate, low-temperature testing chambers. Invariably, these air conditioning and refrigerating machines are operated with "Freon" refrigerants... widely recommended because they are safe, efficient, dependable and fully comply with building code requirements. Your own engineers will recognize the wisdom of investing in equipment charged with "Freon" refrigerants. Discuss it with them soon. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.



Better Things for Better Living...through Chemistry



**CITY MANAGER** Charles A. Harrell comes in with a base salary of \$27,500.

propriated money and then, as department head, proceeded to spend it.

There were able men in the city government, but it tended to attract the professional politician whose main interest was perpetuating himself in office. Tax rates were juggled for various areas of the city, in line with political interests. And, the pro-managers insisted, the taxpayers weren't getting full value for their money.

• **Growing Pains**—Thousands of homes lacked sewer connections. Streets were pockmarked with holes after every heavy rain, since there were few storm drains. Businessmen were losing money because the city couldn't afford to hire enough traffic cops.

The Chamber of Commerce was sure these shortcomings were unnecessary, that there was waste in the politically controlled system. The chamber steered clear of politics itself, but several of its leading members spearheaded a businessmen's campaign in the 1940 elections. Their disorganized movement failed by a vote of about 10,000 to 6,000.

The businessmen's rebellion flared up again in 1946-47. Alex R. Thomas, Sr., vice-president of a wholesale lumber company, was then president of the Chamber of Commerce. He and his directors in the chamber often discussed the city's growing pains and saw the need to relieve them.

• **Trojan Horse**—Suddenly, the first chance came—from the "enemy" camp. Mayor Gus Mauermaun offered Thomas an appointment as chairman of the city planning board. The board had been



## EXPERIENCE IS A GREAT TEACHER!

Ever build a boat in a basement? The forlorn fellow in the illustration will assure you it's a frustrating experience.

But . . . lessons learned through experience are long-lasting and in the final analysis add up to "know-how."

Combine Brown & Root's thirty-eight years of experience with a loyal, alert, and virile organization and you have a combination that can't be matched.

Brown & Root's list of satisfied clients, particularly in the great Southwest, is impressive. If you are planning a new plant in the petro-chemical or heavy industry field, you can save money and grief by conferring with a Brown & Root expert. Brown & Root can do a turn-key job, from plant location and engineering to the finished product.



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CABLE ADDRESS — BROWN-BILT

Associate Companies:— BROWN ENGINEERING CORP. • BROWN & ROOT MARINE OPERATORS INC.



## PREVIEWERS *of a*

**O**N DECEMBER 5, 1941, these utility engineers from all parts of the country made a trip to the Somerset Station of Montaup Electric Company, Somerset, Mass., to see a new boiler...a radically different boiler...a controlled circulation boiler.

The main difference between the Montaup boiler and American power boilers of conventional design was that it employed a new and different principle of circulation. Its circulation was *controlled*. With this principle, a specially designed pump is used to maintain positive circulation throughout all parts of the boiler and the flow to each section is controlled according to its needs. Conventional, or natural, circulation boilers on the other hand, depend entirely on heat to maintain circulation and do not permit positive control of flow to different circuits.

Previously, controlled circulation had been in use commercially in Europe, but only in relatively small boilers. This was the first application in an American power station and it had the further distinction of being the first boiler to produce steam at a temperature as high as 960° F. At

2000 pounds per square inch design pressure, it was also one of the two highest pressure boilers in this country.

One major advantage of controlled circulation is that it is ideally suited to use in the higher pressure range where heat as a means of circulation becomes less effective...and it is in this higher pressure range — from 2000 pounds per square inch up — that higher overall plant efficiencies can be achieved. There are, of course, collateral advantages such as:

- substantial reduction in weight made possible by the use of small-diameter, thin-wall tubes;
- new flexibility in proportioning boilers to fit existing space;
- quicker starting up and shutting down;
- maximum number of service hours per year.

The drastic departure from conventional practice at Montaup — which these engineers came to see — required pioneering courage as well as engineering competence of a high order to solve the many technical problems. That



**COMBUSTION ENGINEERING**



## *Major Development in Power Generation*

Combustion Engineering—Superheater, designers and builders of the boiler, the Montaup Electric Company and the consulting engineers, Stone & Webster Engineering Corporation solved these problems has been demonstrated by the boiler's highly successful performance record over a period of years. Moreover, the proven advantages of controlled circulation have so impressed leading utility companies that they have placed orders with Combustion in the past 18 months (see list at right) representing a total investment of more than 50 million dollars. Orders have also been received from the U. S. Navy for C-E Controlled Circulation Boilers to power two destroyers of an advanced design.

• • •

The development of the Controlled Circulation Boiler is another example of Combustion's design leadership in the field of steam generation...leadership that makes it worth your while to consider C-E Boilers for your steam requirements whether large or small...utility or industrial...power or process.

B-533

### **Utility companies that have C-E Controlled Circulation Boilers on Order**

Contracts cover a total of 18 units to serve an aggregate turbine capacity of 2,500,000 Kilowatts. Design pressures range up to 2650 pounds per square inch.

Company	Plant Location	Capacity per unit lbs. of steam per hr.
Cleveland Electric Illuminating Co.	East Lake, Ohio	875,000
Consumers Power Company	Essexville, Mich.	1,050,000
Duke Power Company	Spencer, N. C.	900,000
Philadelphia Electric Company	Charter County, Pa.	1,450,000
Public Service Electric & Gas Co.	Keany, N. J.	1,015,000
Southern California Edison Co.	Elizaville, Calif.	920,000
Virginia Electric & Power Co.	Woodbridge, Va.	750,000
	Gilmerston, Va.	750,000
Wisconsin Electric Power Co.	Hillman, Wis.	795,000

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Newsprint—and many other kinds of paper—are made with chemicals from Hooker. From Maine to Tacoma, the big Hooker tank cars carrying liquid chlorine and caustic soda are a familiar sight as they roll to the mills.

The country's paper industry is just one of 30 served by Hooker, basic supplier of industrial chemicals. Chlorine and caustic soda, muriatic acid, sulfides—these everyday "workhorse" chemicals roll from Hooker plants in ever-increasing tonnages.

Hooker supplies "fine" chemicals, too—intermediates or "building blocks" for better soaps, dyestuffs, plastics, lubricants, drugs, paints, adhesives, insect-killers, and hundreds of other products.

Behind the Hooker tank cars is a story of years of careful research; highly specialized skill; a flexible service organization that can help you make a better product, too. Write today for the "Story of Hooker Chemicals."

*From the Salt of the Earth*

### HOOKER ELECTROCHEMICAL COMPANY

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SODIUM SULFIDE • SODIUM SULPHYDRATE • MURIATIC ACID



**"... 'If you don't like the way I'm running the city...' said the mayor..."**

**SAN ANTONIO begins on p. 104**

set up in 1944, but hadn't been active. Thomas accepted on condition he be allowed to name his own board. The mayor agreed.

Mayor Mauermann didn't realize it, but at that moment he was greasing the skids for the old order. Thomas and the 19 other businessmen he named began to move fast. Each of the 20 put up \$5,000 cash to pay for a master plan for the city's future; they figured that, as businessmen, they owed that much to their community. This fund paid for engineering studies the city had no money for.

• **Offshoots**—Soon the planning board was saturated with plans. It cast an eye on city government in general and decided it had an interest there, too. So it sired a group called the Bureau of Governmental Research, which incorporated so as to be eligible for tax-free contributions. The bureau hired Edward G. Conroy as director, with the job of studying the city administration and comparing it with the council-manager system.

It didn't take long for Conroy to pick flaws in the existing administration, to decide the city needed the council-manager form of government. As a big business, he said, the city should be managed by a man outside politics and trained for his job. Departments should be administered by professional executives; the council should only lay down policy and give general supervision.

• **The Challenge**—A group of businessmen drew up a petition for an election to adopt a council-manager charter. Thomas, White, and Walter McAllister, Thomas' successor as chairman of the planning board, took the petition to city hall. It was shelved. More than that, Mayor Alfred Callaghan blasted White in the next day's papers for interfering in politics. White was at that time president of the Chamber of Commerce.

When White countered with a newspaper statement, Mayor Callaghan threw down the gauntlet. If any of the three emissaries of business didn't like the way he was running San Antonio, he said, that man should run for mayor himself.

Callaghan—and White, too—was surprised when White took up the dare. "What am I doing?" White wondered for the next several days. But it turned out he had done the one thing needed to win the businessmen's rebellion—he had stuck his neck out where others

# An especially important story today...

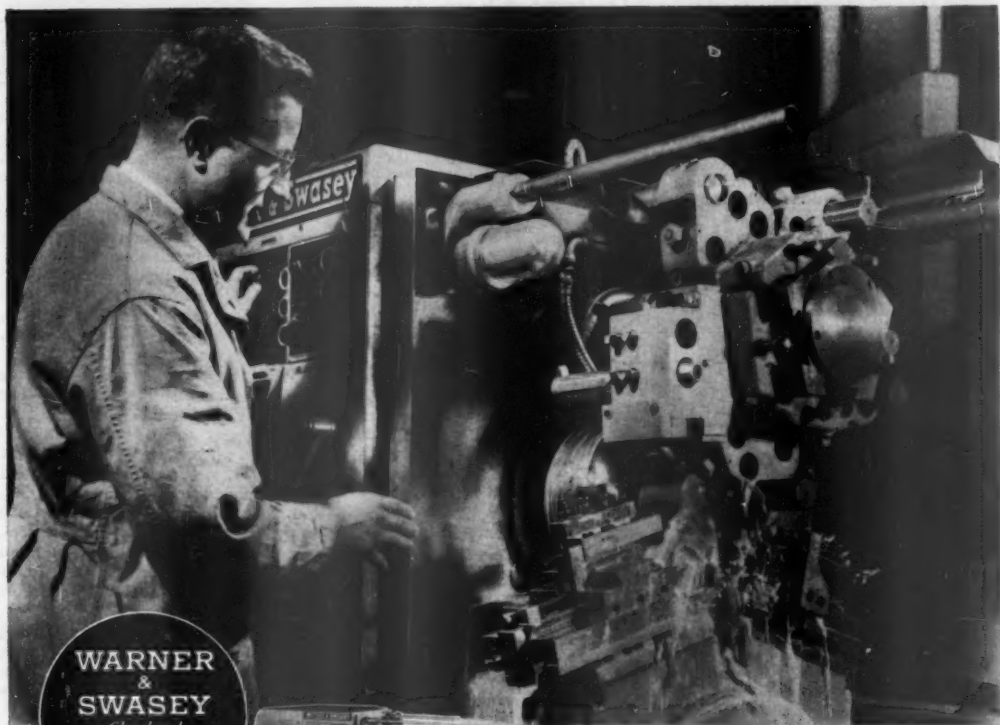
## PRODUCTION UP 220%—YET WITH FEWER OPERATORS!

● Take a look at the record of Warner & Swasey 1-AC Single Spindle Automatic Chucking Machines, used at The Cooper Alloy Foundry Co., to machine Cast Type 316 Chromium-nickel stainless steel Valve Nuts. These automatic machines increased production 220%, reduced floor-to-floor time 69%, turned out more uniform parts, substantially cut

costs per part. Yet they required no additional setup time.

In today's tight manpower market the 1-AC Automatic is taking on increasing importance to management. One man can handle two machines—with each machine turning out substantially more production than an individually-manned, hand-operated machine.

Certain types of machining jobs in your plant can undoubtedly be done better, faster, more profitably—and with less manpower—with the 1-AC Automatic. To find out just how the 1-AC fits into your production setup, call in your nearest Warner & Swasey Field Representative, or write The Warner & Swasey Company, 5701 Carnegie Ave., Cleveland 3, Ohio.



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Cleveland  
Machine Tools  
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Warner & Swasey 1-AC Automatic Chucking  
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# Guard Against Intruders



## WITH GOOD LIGHT

Alone in the wilderness, a man relies on the light of his tiny campfire to hold night-prowling marauders at bay. You can give your plant and personnel this same time-tested protection with Appleton Floodlights—big, rugged fixtures expressly designed to guard industrial properties while providing the good light necessary for best working conditions.

For example a series of Appleton Elipso Standlites—properly spaced along a fence-line or mounted on buildings—forms a veritable barrier of light. This is only one of the many expertly designed fixture models from the complete Appleton Floodlight line—a line that includes a sound, scientific answer to every known floodlighting problem.

For fixtures that meet every industrial requirement—including hazardous locations—whether indoors or out, contact Appleton, pace-setting manufacturer of electrical equipment for nearly half a century.



ELIPSO Standlite Mounts on pole or wall.



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CONDUIT FITTINGS • LIGHTING EQUIPMENT • OUTLET AND SWITCH BOXES • EXPLOSION-PROOF FITTINGS • REELITES

Branch Offices and Resident Representatives in All Principal Markets



"... They used direct mail, personal calls, lots of manpower ..."

SAN ANTONIO begins on p. 104

before him had been unwilling to get into a rough-and-tumble.

• **Battles**—White left his three hotels to run themselves while he ran for mayor. Businessmen flocked to help him. Without solicitation, they raised a campaign fund of \$51,000. They did everything but agree to run for the four commission posts with him.

White was elected by a four to one margin, the greatest landslide in San Antonio's history. For the first time, a mayoralty candidate carried every ballot box in every precinct.

Of course, White was only the entering wedge, the lone council-manager proponent among the old-line commissioners. But last May the Citizens' Committee for Council-Manager Government ran a full slate pledged to charter revision: White himself; T. N. Tucker, a CPA; Alvin Schmidt, electrical contractor; Sam Bell Steves, building supplies; and George Roper, retired army officer. They were elected two to one, along with a 14-man commission to draft a council-manager charter.

The new charter went to the voters last Oct. 2. It was adopted by nearly two to one. The next month the council was elected: the five incumbents plus Harold Keller, builder; Dr. Nelson Greeman, optometrist; Mike Cassidy, lumberyard owner; Ruben Lozano, lawyer and newspaper publisher.

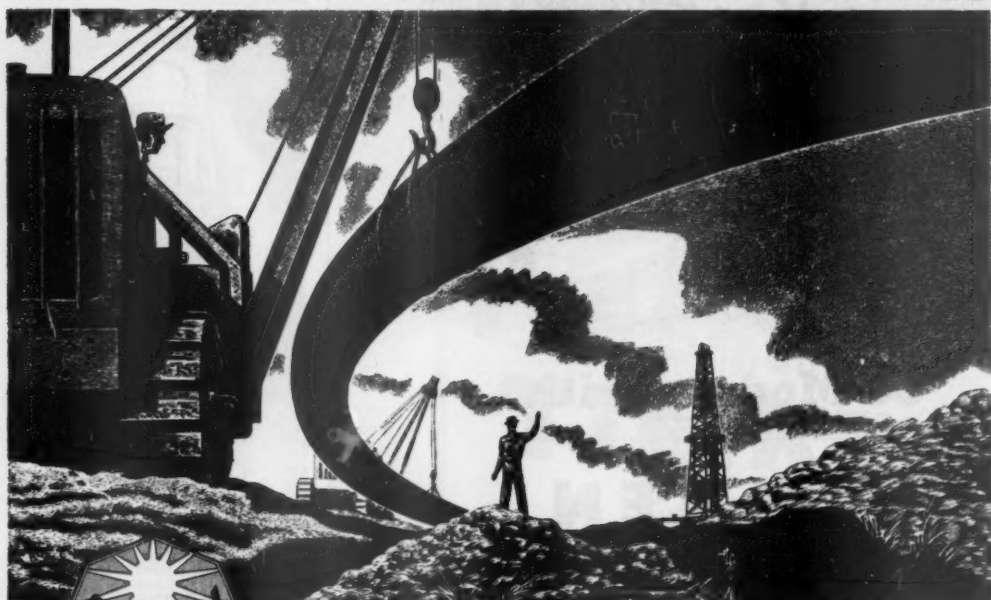
• **Why They Won**—Strategy in all the campaigns was basically the same. The group used direct mail, personal calls, lots of manpower. More than 3,000 volunteer workers went to bat in the May, 1951, election drive. They called every qualified voter the day before election, checked them off as they came to the polls, followed up the absentees, in person if necessary. They had maps of the precincts, showing voting trends over the years, and focused their effort accordingly.

• **Coming Up**—City Manager Harrell and the new council are now armed with a \$324-million master plan for minimum improvement needs of the city over the next five years.

The new plan calls for: \$4-million for sewer system, \$10-million for street drainage, \$7½-million for flood control, \$3½-million for streets and bridges, \$7-million for an expressway, \$1-million for parks and recreation, \$5-million for a new traffic light system, \$345,000 for health department buildings, \$1½-million for a new city hall and jail, and \$1-million for the city's share of slum clearance costs.

# THE STORY OF SUNRAY—Aggressive Enterprise for 31 Years

NUMBER 4  
OF A SERIES



## The Pipeline's Job

The oil pipeliner's work is a job of continuous, almost split-second timing. When you put thousands of barrels of oil or other products into an underground line under pressure, and start it to delivery point hundreds of miles away, every factor in this transportation system must be synchronized. Radio and electrically controlled communication devices link these operations through stations such as this along the SUNRAY system at Wynnewood, Oklahoma. SUNRAY's crude oil gathering, plant facilities and products pipe lines are vital segments in the company's operations.

## ARTERIES OF STEEL FOR INDUSTRY'S LIFELOOD . . .

One of the Miracles of America is its ability to double or treble production — on short notice. And one of the most important factors in stepping up production is a constant, dependable supply of oil, gas, gasoline and other petroleum products for commerce, industry and the defense program.

First: Oil must be *discovered*. Second: It must be economically *produced*. Third: The crude must be *refined*, and Fourth: The supply must be constant and *efficiently distributed*.

Today, the transportation of most petroleum products is by the use of pressure pipe lines. At the lowest possible cost, and with the least hazard, a plentiful supply of oil, natural gas, gasoline and other refined products — may be transported from the very source of supply, completely across country, to consumers in homes and industry.

SUNRAY'S crude oil pipe line facilities between producing fields and the company's refineries are constantly doing a better job. As a crude oil purchaser SUNRAY has shown a gain of approximately 400% since 1948, now averaging 41,000 bbls. per day of crude oil deliveries in Oklahoma alone.

The company's refineries are meeting the ever-growing demands of farm, home and industry for better petroleum products, in addition to greater requirements of motorists. Pipe lines transport the bulk of these products.

SUNRAY'S part in this Miracle of America is to keep up the search for oil through *aggressive exploratory effort . . . to produce efficiently* from present crude reserves . . . to *refine or manufacture* high quality petroleum products and finally to *deliver* these products wherever they are most needed. SUNRAY is doing this aggressively.

Is oil a profitable business? It is . . . to the landowner . . . the royalty owner . . . to oil company employees . . . to oil company stockholders . . . to the material and commercial users who benefit from oil's progress . . . and to the community, state and nation which benefit from the industry's substantial taxes. Is oil a profitable business? Yes! What's wrong with that?

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**Go Modern with**

**TIMKEN**  
*Detroit*  
**AXLES**

A PRODUCT OF THE TIMKEN-DETROIT AXLE COMPANY  
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## Here's One More Reason Why— RECTANGULAR AXLE HOUSINGS

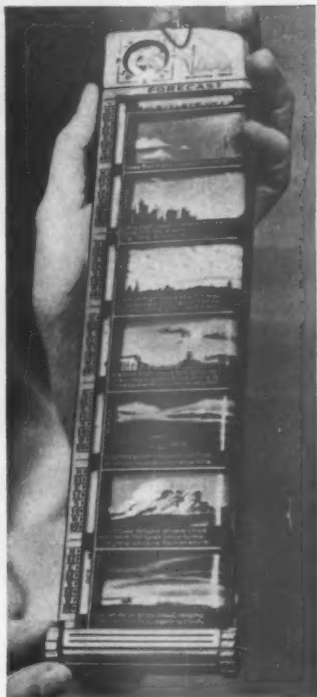
Your trucks will carry *more* payload—and keep within legal weight limitations—when they're equipped with Timken-Detroit Axles! That's because Timken-Detroit's rectangular steel axle housing is the most rigid and yet the *lightest*—rated capacity for rated capacity—ever built! This would still hold true even if metals of lighter weight could be used, within practical space limitations. This rugged housing is hot-forged of high-carbon steel—putting dense, compacted steel into the corners for maximum resistance to vertical and horizontal bending. A heavy steel cover is welded in place to complete a rigid, one-piece structure. Wheel spindles are made from forgings of alloy steel\* for maximum surface hardness at the wheel bearings and are electrically butt welded to the housing shell. Laboratory tests and field experience have proved this Timken-Detroit rectangular axle housing carries loads with much less deflection than conventional housings of the same rated load-carrying capacity. Whether you build, buy or sell trucks, you'll be wise to standardize on Timken-Detroit Axles and Brakes!

\*One series only of light-duty axle housings have high-carbon steel spindles.

**WORLD'S LARGEST MANUFACTURER OF AXLES FOR TRUCKS, BUSES AND TRAILERS**

PLANTS AT: Detroit and Jackson, Mich. • Oshkosh, Wis. • Utica, N. Y.  
Ashtabula, Kenton and Newark, Ohio • New Castle, Pa.

## READERS REPORT



### Who Calls the Shots?

Dear Sirs:

In the past you have run several articles on Irving P. Krick, the king of the cloud-seeders [BW—Aug. 11 '51, p. 88; BW—Jul. 14 '51, p. 22]. I thought you'd like to see his little weather forecaster. You tell what the weather's going to be by comparing the clouds in the sky with the clouds on the "weather stick."

What I want to know is what happens to Krick's forecaster when Krick starts cloud-seeding?

HENRY JEROME

DENVER, COLO.

### Better Relations

Dear Editor:

That was an excellent piece on the fourth annual convention of the Council of Profit Sharing Industries in Detroit [BW—Dec. 8 '51, p. 40].

Actually, over 40% of the council's members have union contracts. I have five unions in my own plant. Regardless of the national office's reaction to profit sharing, the actual pressures are such that many local unions are not able to forego them, and the consequent re-

sulting better production and better relations between management and labor are most satisfying.

WILLIAM LOEB

PRESIDENT  
MANCHESTER UNION LEADER  
MANCHESTER, N. H.

## First With Air Coach

Gentlemen:

Your article "What's Minimum Air Rate to Europe?" [BW—Nov. 24 '51, p 22] gives a comprehensive coverage of the subject, but it contains an inadvertent error that "Pan Am was the first scheduled line to go along; it started coach service between N. Y. and Puerto Rico in 1948."

The tourist service of Pan American was established between N. Y. and Puerto Rico in September, 1948. It was preceded by our own tourist service between the U. S. and Cuba, Panama, Ecuador, and Peru when we inaugurated operations over our international routes in June, 1948. Tourist service was an intrinsic element in the service plan we devised for our international route and has since been extended into Buenos Aires.

It is entirely possible that Pan Am was making plans for their service at the time we inaugurated, but the fact of the matter is that we actually inaugurated the service first. A further fact is that the tourist service was so successful that it was later put into effect by Pan American Airways' affiliate, Panagra.

The services we inaugurated on June 4, 1948, consisted of first-class service operated with DC-6 aircraft and a tourist service operated with DC-4 aircraft, so devised that all or part of the cabin could be used for cargo or passengers or both as the demands of traffic required. This service was specifically devised, among other reasons, for the purpose of encouraging travel by folks who could not afford the first-class services. As a matter of fact, the establishment of such a service had been specifically suggested to us by several of the governments of South America, particularly for use by young Latin Americans who desired to come to the U. S. to obtain their education. Our tourist service was one of many steps we have taken . . . to encourage this interchange of students.

CHARLES E. BEARD

EXECUTIVE VICE-PRESIDENT  
BRANIFF INTERNATIONAL AIRWAYS  
DALLAS, TEX.

Letters should be addressed to  
Readers Report Editor, BUSINESS  
WEEK, 330 West 42nd Street,  
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**BEST** for replacement!

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Experienced truck men know it pays to buy trucks equipped with Timken-Detroit Axles. These advance-engineered axles perform better—stand up longer—cost less to maintain.

It's only good judgment to keep this high level of dependability for the entire life of your truck. Whenever Timken-Detroit parts need replacement, make sure your service man installs only Timken-Detroit original equipment parts. It took more than 40 years to perfect today's Timken-Detroit Axles—and nobody else can build genuine parts to maintain them.

Look for the truck dealer who displays the Timken-Detroit sign—headquarters for true Timken-Detroit parts, protected and packaged in engineered kits for maintenance work that lasts longer!

The Timken-Detroit Axle Company, Detroit 32, Michigan

MAIL THIS COUPON FOR ILLUSTRATED FOLDER ON TIMKEN-DETROIT AXLE LUBRICATION

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100 Clark Street, Detroit 32, Michigan

Gentlemen: Please send me free illustrated literature on Timken-Detroit Axle Lubrication.

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ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

I operate \_\_\_\_\_ (Number of trucks)

## OFFICE EQUIPMENT



**NEW** in the '90s was the Globe-Wernicke file that let you see contents.



**NEW** today is G-W's Techniplan system of modular office equipment. Movable partitions and desks save floor space and make for efficiency.

## Newcomer Hypes Up Old Business

Maybe you don't think that making locomotives and building materials is ideal training for the boss of an office equipment company. Don't be too sure: There's always the case of Alfred C. Howard (cover) of the Globe-Wernicke Co.

Howard had done a lot of things in his life when he came to G-W in 1948, but none of them had anything to do with office equipment. That didn't prevent Howard from taking the slightly musty Cincinnati company by the scruff of the neck and giving it a good shaking.

• **Going Up**—The result: In 1950 (Howard's first full year as president) G-W earned \$463,000 after taxes; for 1951 it's a good bet that the figure will be around \$620,000. Earnings before taxes are up even further. In 1950 they were \$863,000; this year they're likely to hit \$1.9-million. To the stockholders, that means presumed 1951 earnings of \$1.90 a share, compared with \$1.43.

When he moved into G-W, Howard

didn't know anything about office equipment, but he had one strong opinion: The stuff he had seen was inefficient and outdated, not to mention depressing. "I thought of office equipment as something stodgy or jaundiced," he said later. "Now I've found it can be made just as exciting as—riding in an airplane. It can be made more glamorous, more efficient, more profitable. We intend to be the leaders in achieving this."

• **Some Downs**—Howard came to G-W in the fall of 1948 as executive vice-president. The following February he became president. His job was to breathe new life into a company that had been jogging along since 1883. It had moved pretty steadily uphill until it tripped in 1924 and then fell flat into a 77-B reorganization in 1932-1934. In World War II it did a lot of business, aided by military contracts, but earned relatively modest profits—after taxes.

In 1946 business was terrible. Net income dived to \$28,855, not much

more than a tenth of the previous year. Things looked a lot better the next year, with business booming everywhere. In 1948 Howard arrived, and net income moved above \$400,000, apparently to stay.

Howard believes that any successful business must have three main bases:

- Product development. "It isn't enough to keep up with the other fellow," Howard says. "You have to get ahead of him."

- An efficient mechanical setup for production.

- Good sales promotion.

On the second point, Howard has been installing conveyors in the three-plant G-W plant in suburban Norwood. That's quite a job, for the multistoried building—housing 2,000 workers—has just grown into its present three divisions for handling steel, wood, and paper products. The main idea is to get the materials to a machine operator and take away the finished work, without bothering the operator.

In sales promotion, Howard has con-



**OVER \$42 BILLION:  
Another Boom Year For  
FARM FAMILIES**

**...AND IN 1952  
Farm Income Will Be  
EVEN GREATER**



**F**armers earned \$5 billion more *last year* than in prosperous 1950. Average 1951 income for our 5.4 million farms exceeds \$7,800 per farm. But take a look at the better half!

Our top-half farms consistently get 90% of all farm income, averaged a whopping \$14,000 plus per farm in 1951!

#### **FARM OUTLOOK FOR 1952**

Farm families will earn more, be even better customers, this year. Federal agencies are calling on them for a still greater output of food and fiber in 1952 to meet all-time high demand...

- More raw material for defense industries.
- More food for growing military forces.
- More civilian mouths to feed — U.S. population is increasing 2 million yearly.
- More money for food — consumer incomes continue upward.
- More people eating more — food consumption per capita is already 13% above prewar.
- More people eating better — Americans are steadily upgrading their diets.
- More farm products for our friends abroad.

These upper-half farms are largely responsible for a major marketing fact: *Rural customers spend every third dollar at retail in America!*

And it is among these upper-half families that *Country Gentleman* concentrates its 2,300,000 circulation.

That is why dealers in every basic line say: "Country Gentleman helps me most to sell my best rural customers."

That is why business places more advertising in *Country Gentleman* than in any other farm magazine.

**Read more, used more, liked more  
by 2,300,000 prosperous families  
throughout Rural America.**

**Country  
Gentleman**

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FOR  
BETTER FARMING  
BETTER LIVING



*The name to watch in chemicals*



## THIS ORONITE DEVELOPMENT IS A SILENT PARTNER IN MANY BETTER PRODUCTS

Another good example of Oronite's contribution to industry is our development of the versatile chemical called "Polybutenes." Today, Oronite's Polybutenes improve the performance of electrical insulation, adhesives, molded rubber goods, caulking and sealing compounds and many other products important in your everyday living.

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## ORONITE CHEMICAL COMPANY

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MERCANTILE SECURITIES BLDG., DALLAS 1, TEXAS



CONVEYORS speed production at plant where G-W turns out steel equipment.

centrated on training and assisting the company's dealers.

• **Modular**—Product development, however, is the field that most shows Howard's influence. He has been the driving force behind G-W's development and promotion of Techniplan, a system of modular office equipment, featuring movable partitions and adjustable desks. This equipment effects large savings in floor space with a maximum of efficiency.

In 1949 G-W already had plans for modular steel equipment on its drawing boards. Then du Pont announced that it had made similar furniture for its own use. Du Pont wasn't interested in the business and offered to let other companies manufacture or amend their plans under license. G-W and six other companies paid \$1 each for the privilege.

G-W claims that the du Pont designs gave them nothing new; in fact, they claim their own plans were definitely better. In any case, G-W is now convinced that it has pretty well run away from the field in modular furnishings.

It claims three major advantages:

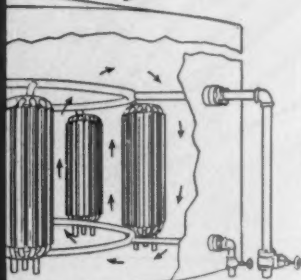
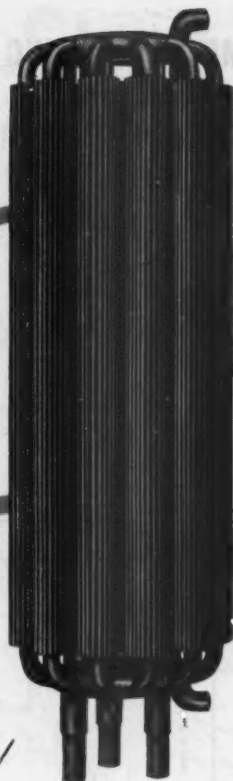
• Techniplan equipment is more flexible than the du Pont type. That's because its L-shaped desks come in two parts, instead of one.

• G-W says its method of attaching movable partitions to the units is simpler and better than any other. No skilled hands are needed to install Techniplan.

• G-W makes its modular equipment in either steel or wood. Now that steel is scarce, it can shift to wood without any serious slowing down of unit production.

G-W never issues sales figures. But Howard says that the company's share of all business done in its field has more than doubled in the last couple of years, that it has climbed from

# BROWN FINTUBE Thermo-Flo TANK HEATERS



## ...Greatest Improvement in Tank Heating in 30 Years

Brown Fintube Thermo-Flo Tank Heaters are more efficient, and usually *cost less plus their installation*, than the cost of just installing equivalent capacity of old fashioned bare pipe coil in the bottom of the tank.

Brown Thermo-Flo heaters mount vertically, on adjustable legs about 12" above the tank bottom, thus preventing depositing on the tubes; and avoiding the lost efficiency of heating the tank bottom, and a layer of sediment. The bottom of the tank is uncluttered and easy to clean. The entire surface of the fintubes is exposed to the tank contents. Material adjacent to the fintubes is heated quickly and rises rapidly, forming a thermal syphon or flow past the fintubes; keeping the heating surfaces clean; assuring extremely

efficient heating; and preventing any stratification of temperature or gravity in the tank.

Due to the large surface area of the fintubes, low steam or water temperatures can be used for heat sensitive materials, and high steam temperatures for rapid heating, without danger of coking.

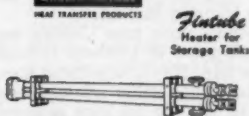
The popular TF-20 heater, pictured above, has 265 sq. ft. of surface, equivalent to about 250 lineal feet of 4" pipe. It connects to inlet and outlet lines with bolted flanges, avoiding welding, and can be installed in either existing or new tanks. Highly endorsed by operating and maintenance men. If you are not already using Thermo-Flo heaters in your tanks, we urge you to write for Bulletin No. 491 today!



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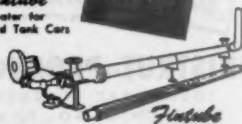
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Suction Heater  
for Storage Tanks



*Fintube*  
Heater for  
Processing Tanks



*Fintube*  
Heater for  
Railroad Tank Cars



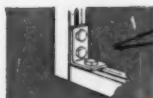
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Direct Fired  
Air Heater



# UNISTRUT® METAL FRAMING SYSTEM DOES THE ENTIRE JOB\* FOR PUBLIC SERVICE COMPANY OF INDIANA, INC.



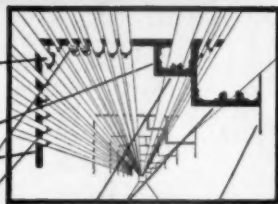
PIPE HANGERS



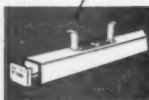
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WOOD, replacing scarce steel, can be used in Techniplan setups.

fourth or fifth place in the industry to third. Techniplan, of course, has played a big part in this growth, though Howard has been striving for similar streamlining of the rest of the big line of products.

• **Georgian**—Howard's own career is almost as varied as Globe-Wernicke's line of products.

Howard was born 56 years ago in Atlanta. One branch of the family, the Colquitt's, had been active in national and Georgia politics before the Civil War. Young Alfred went to Georgia Tech, being graduated with a degree in mechanical engineering in 1916.

Meanwhile, he had tried summer jobs, then had brief whirls with Wright Aeronautical and American Creosoting after his graduation. But what he calls his first real job was with the Canadian branch of Fairbanks-Morse Co. By the time he was 25, he was manager of the company's scales plant at Sherbrooke, Ont.

Later he was transferred to Beloit, Wis., and by 1937 was general manager in charge of five large plants. By the time he left Fairbanks-Morse in 1946, he had made scales, locomotives, and submarine engines—none of them precisely office equipment.

• **Shifts**—From F-M, he went to Ever-sharp, Inc., for one year, then did another one-year trick as assistant to the president of The Philip Carey Mfg. Co., a maker of building materials, insulation, and shingles. From there he went to Globe-Wernicke, where he seems to be pretty well set.

The rolling stone from Georgia has rubbed off a lot of southern features along the way. He's a Republican now, and talks with a fairly northern-style accent. In fact, he has even departed from the ancestral mint julep. These days, he prides himself on turning out a high-quality Martini.

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For more than 47 years, Century Type RS motors have given satisfactory service throughout the world. They are available in sizes from  $\frac{1}{2}$  to 20 horsepower, in drip proof and splash proof frames.

In addition, Century builds electric motors in a wide range of types and kinds—in sizes from  $\frac{1}{6}$  to 400 horsepower for operation on single and polyphase and direct current. Specify Century motors for all your electric power requirements.



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AC, 63 to 250 KVA  
DC, 75 to 200 KW

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Ball Bearing motors are factory lubricated for several years' normal service. Bearing housing construction permits easy re-lubrication when unusual service demands it.

# MARKETING

## Distribution Costs: Really Going Down?

**YES** says P. D. Converse, who shows that, since 1938, distribution costs have dropped in relation to production costs. He lays this chiefly to improved methods: faster transportation, better handling methods, self-service. This has meant greater productivity per distribution worker.

Distribution costs are too high. This has been gospel among marketing men and economists for more than a decade.

Now one of the foremost authorities in marketing has questioned the cliché. He says that distribution costs haven't been rising in relation to production costs at all. In fact, they've been dropping.

This is the theme of a paper written by Paul D. Converse for the American Marketing Assn. meeting in Boston two weeks ago. Converse, professor of marketing at the University of Illinois, puts it this way:

"We have heard about the miracle of production. Now, what I am saying is that marketing has kept pace. The proportion of national income taken in distributing goods has not increased during the years from 1909 to 1948. If anything, marketing has slightly outstripped production."

• **Look at the Record**—The most impressive part of the record was chalked up during the past decade, when there was a "definite drop in the percentage cost of marketing." Here's how Converse has figured it, using the latest data from the 1948 Census of Distribution:

Year	Total cost of distribution	% of total values added
1929	\$36-billion	49.2%
1939	29.4-billion	50.5
1948	90-billion	48.0

By total cost of distribution, Converse means: "a figure that includes the buying, selling, transporting, and storing of raw materials, partly manufactured goods, and finished products by farmers, mills, fabricators, manufacturers, warehousemen, railroads, truckers, pipe lines, ship operators, brokers, selling agents, commission merchants, wholesalers, jobbers, retailers, and others."

As the table shows, there was a huge long-range rise in dollars spent on distribution but a downward trend in the

percentage of total costs that went for distribution.

• **Considerable Agreement**—It is possible that economists may snipe at Converse's methods for arriving at a cost-of-distribution figure. He himself is under no illusion about the difficulty of making an accurate estimate. There are a half-dozen ways to do it, and all have been used. Nevertheless, Converse points out that there is "considerable agreement" among the experts concerning the final figure.

Converse will be criticized, more likely, for his interpretation of the figures rather than for the figures themselves. Here are some of the vital questions that will be raised:

At what point did distribution start making a better showing than production in costs? What caused the shift? Is the gain real or merely apparent? Will it last?

### I. Since When?

The first thing to come under fire will probably be the Converse time scheme.

Converse seems to find evidence that the trend toward lower distribution costs (as a percent of total costs) began as far back as 1909. The trouble here is that there is almost no way to prove anything. Before 1929 you have to navigate by the seat of your pants; that was the date of the first Census of Distribution. Where Converse can produce one study to show that a long-range decline in distribution costs began in 1909, you can find plenty of other evidence to the contrary.

• **Figures Talk Back**—Converse's own figures, indeed, seem to contradict his reference to 1909. Between 1929 and 1938 they show a slight rise in percentage of costs, rather than a decline. It's after 1938 that you get the decline.

In other words, as far as the period since 1929 is concerned, the only gains

**NO** say some other economists, who find that the improved distribution record is due largely to increased volume, not to any basic improvement in marketing efficiency. This raises the question: Will relative improvement in distribution costs continue unless the system is overhauled?

distribution has made have all come in the last 10 years. Significantly, these were the years of war and postwar boom. A close study of the trends at work in those years suggests that the downward trend in distribution costs by percentage may be at a turning point, may even reverse itself.

### II. What Caused It?

A major factor behind cost declines in distribution during the 1940's was productivity. Converse offers data to show that productivity gains for distribution in that period were far ahead of the gains for production. From 1909 to 1939 it was the other way around.

Converse uses these figures for productivity (which are higher than most economists would use): In 1909-39, the volume of goods produced per man increased at the rate of about 3.5% each year, while the volume distributed per man was rising 1.1% each year. From 1939 to 1948, however, Converse says, production output per capita rose 4.2% per year, while distribution volume per man increased 3.6% each year—more than triple the 1909-39 rate of increase per year.

• **The Reason**—How did distribution make these gains? Converse says: "One possibility is that the investment per distribution worker increased considerably during this decade."

Converse goes on to identify the improvements that he thinks lie behind the gain in distribution productivity.

He stresses that labor-saving devices have cut costs in the physical handling of goods. He cites improvements in speeding up railroad service, the rapid increase of trucking, the growth of pipelines and other efficient methods of moving bulk loads. The one-story warehouse and the fork-lift truck have also played important roles.

Converse points out the importance of these improvements when he re-

marks that the "physical handling of goods involves about one-half the total cost of marketing goods."

• **Other Factors**—Other capital improvements have also helped to bring down costs. One of the most important has been the spread of the self-service principle in supermarkets. New and improved office machinery has also been a decided help.

Then, too, big-ticket items such as refrigerators and cars became highly important factors in the postwar retailing picture as the hard goods boom continued. That created an automatic saving in retail costs, since it takes fewer manhours to sell \$1,000 worth of refrigerators than \$1,000 worth of drugs.

Still further factors in reducing costs, according to Converse, were such things as these: the reduction of advertising costs from 3.4% of national income in 1935 to 2% in 1950, vertical integration through mergers of companies, better marketing forecasting and management techniques in general.

### III. Real or Apparent?

There may be some questions raised in detail about these points. Marketing economists have already looked askance at the doctrine that vertical integration necessarily reduces costs (BW—Nov. 10 '51, p. 128).

Mostly, where they will tangle with Converse will be on the weight he gives the factors. Someone will certainly point out that Converse has paid no attention at all to what Julius Hirsch has called "volume productivity."

• **Hirsch's Axiom**—Hirsch, chief adviser to the Office of Price Administration in World War II and now marketing consultant to private concerns, pointed out the phenomenon of volume productivity in the American Economic Review in 1947. He invoked the "law of fixed costs." "As volume rises," he said, "the unit costs decrease automatically, within certain limits; with decreasing business volume, they rise."

The second half of the axiom helps to explain what happened to distribution costs after 1929: Decreasing volume between 1929 and 1939 helped raise the percentage of distribution costs as noted by Converse. Since 1939 we have been testing the first half of the axiom, the part about what happens when volume increases.

• **What Happened**—In the 1940's the physical plant for distribution remained pretty much as it had been for some years; there was little commercial building in the 1930's, and the war stopped what there was (BW—Aug. 25 '51, p. 108). Yet in this only slightly improved plant the distributive trades did an enormously increased volume of business.

At the same time, as critics of mar-

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Actually, after the recommended changes were in effect, operators maintained an output 60% greater than previously. Reduction in departmental overhead alone, due to increased output, amounted to approximately 35%.

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keting have pointed out, retailers withdrew many of the services they once offered. Naturally, with increased volume, less service, and the same old plant, the productivity record was bound to improve impressively.

This is not to say that there hasn't been a gain in productivity. But was this the "miracle of distribution" that Converse speaks about? Perhaps it was rather a case of getting a lot more mileage out of the same old plant.

#### IV. Will It Last?

There's a good side to volume productivity. It suggests that our distribution setup was tailored for the kind of prosperity we've had for the past decade or more.

During the 19th and 20th Centuries, the distributive system got steadily bigger, more complex, more cumbersome. Functions became more specialized. We distributed more goods to more people. All this was part of our economic maturing.

At the time it was being built up, it looked like—and was—an inefficient and expensive system. Now the volume of goods going through this distributive system has finally grown to the point where the operation is efficient. Perhaps the system is even being used to full capacity.

• **What Now?**—If that is true, we've already hit the peak of efficiency. From now on, any improvement would have to come from a bigger and more efficient plant. In other words, the next gains may have to be real ones if distribution is to keep pace with production.

Converse himself makes the point when he comments that the price advantages of any new form of distribution tend to be lost with the passage of time. There's always a tendency on the part of retailers to add new services and other attractions in order to bring in new customers. That washes out some of the cost savings.

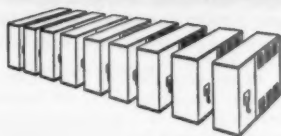
This law of diminishing cost cutting has already fastened on supermarkets, young as they are. Their gross margin—overhead and profit—has stabilized at 18%; there are no signs overhead is going lower. In fact, some observers fear that there is a tendency for it to rise through the addition of frills.

Department stores, of course, have been fighting the high costs for years—and losing by degrees (BW—Sep. 1'51, p90).

But the problem is bigger than just supermarkets or department stores. It's a problem that affects all distribution. Converse estimates that in 1948 retail margins averaged 28%, wholesale margins 11.7%. These margins had remained almost unchanged since the 1920's.

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in industry



### ...to power the store with the "magic core"

Famous-Barr Company's new South-town store in outlying St. Louis (one of the newest of the May Company stores) is built around a working heart, called the "magic core," designed to provide the utmost in efficiency with resulting economies in operation.

The core centers all facilities for receiving and shipping, it houses all elevators and stock floors, and contains the store's major heating, plumbing, air-conditioning, and electric installations—including the nine Wagner Unit Substation Trans-

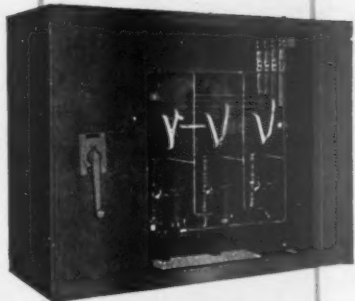
formers that distribute electric power throughout the store.

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One of the nine unit substations that power the store with the "magic core." The front panel of the enclosure is removed to show the core and coils of the 3 phase Wagner dry type transformer.



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# FTC Gets Tough on Discounts

New ruling sets a 20,000-lb. carload as maximum discount unit on replacement tires and tubes. It could bring on a pricing revolution in many other industries.

The Federal Trade Commission issued a rule this week that, unless upset by the courts, will have two predictable results:

- Automobile tire and tube prices will go up.

- Big mail order houses and chains will expand their tire operations. They'll either make more of their own tires, or contract with a manufacturer to make tires for a processing fee from materials furnished by the distributor, or they will contract to take a manufacturer's entire output (BW—Feb. 4 '50, p21).

- **FTC's Yardstick**—What the FTC did was to fix a 20,000-lb. carload as the maximum discount unit on replacement tires and tubes—effective Apr. 7. This means that the buyer of two, five, or 50 carloads will get no greater discount than the buyer of one.

It is expected in FTC quarters that the tire companies will seek a temporary injunction in the Federal District Court in Washington. The Supreme Court probably will have something to say eventually.

- **Price Shuffle**—The commission's action may portend a revolution in pricing practices in many industries. The quantity limit rule applies only to tires and tubes, but almost any product or commodity may get the same treatment, if FTC heeds the complaints of small-quantity buyers—who get the smallest discounts.

- **Small Business Gains**—The ruling is a victory for the champions of small business. It is the commission's first attempt to use its authority to fix the maximum quantity of a product upon which a seller can give his maximum quantity discount. The commission has had this authority since Congress passed the Robinson-Patman Act of 1936, but up to now it has been content to require only that discounts be available on proportionately equal terms to all competitors. That's no help to thousands of small tire dealers who can't afford to buy in carload or even truckload lots. The commission, however, has been coy about fixing maximum quantity limits; it has been afraid of biting off more than it could chew.

FTC split four to one over the new rule, which it first proposed in October, 1949 (BW—Oct. 8 '49, p21). At that time the reaction from Akron, the nation's tire capital, was swift and violent. And Commissioner Lowell B. Mason pointed out, in his dissent to the rule, that the tire manufacturers

and other objectors were not permitted to present evidence that, if correct, would demonstrate that there is no need for any quantity limit rule.

The commission's evidence doesn't justify the rule, Mason held.

"The stubborn fact is," he said, "that the commission's evidence all pertains to annual volume of purchase, that the majority's finding as to the effect of discrimination pertains to annual volume, and that upon the basis of this evidence and this finding the majority is trying to fix a limit upon the amount that shall be bought in a single transaction without regard to whether that amount is associated with larger or smaller annual volumes."

- **The Poll**—The fuse that touched off this week's explosion was laid in 1947 at a hearing of independent tire dealers before the House Small Business Committee of the 80th Congress. Chairman Walter Ploeser, Republican of Missouri, put FTC spokesmen on the pan. He wanted to know why they had never enforced the R-P Act's maximum quantity provision.

Thus hard pressed, the commission agreed to get to work on the tire situation. It polled 21 tire makers and came up with figures that showed in 1947:

The two biggest buyers of replacement tires, each of whom did a volume between \$25-million and \$50-million per year, got a price on passenger tires that was 30% less than the smallest buyer. On truck tires, their price was 38% less than the little retailer's cost price.

The nine next biggest buyers' differential was 28% on passenger tires, 40% on truck tires.

For the top 63 buyers the differentials ranged from 26% to 30% on passenger tires and from 32% to 40% on truck tires.

- **The Analysis**—"The magnitude of such differentials," the FTC majority report said, "is shown by the fact that a larger purchaser with a differential of 30% can profitably resell tires at a price about the same as the smallest purchasers pay for them. Under these circumstances such differentials must, inevitably, have a tendency to destroy the business of the many smaller purchasers; and they are, therefore, necessarily rendered unjustly discriminatory within the meaning of the statute by the fewness of the purchasers to whom they are available. Moreover, available purchasers in greater quantities are

so few as to render differentials on such quantities promotive of monopoly in them."

- **Backstop**—There's nothing cocksure in the commission majority's estimate of what happens next. It is hopeful that the rule will arrest the discriminatory and monopolistic conditions that it found in the tire industry. But it concludes:

"In any event the capacity of the act should be exhausted in an attempt to remedy the evil."

## Maker Into Seller

Trend of big shoemakers to set up their own outlets worries small manufacturers. It's going to narrow their market.

A few months ago skeptics doubted that there was a trend toward vertical integration in the shoe industry (BW—Jul. 7 '51, p116). Recent events, however, have ended doubts, nailed down firmly the fact that there is a growing move among the big companies to gain further control of some kind over retail outlets. Examples:

- Last week General Shoe Corp., Nashville, wound up 1951 by buying Innes Shoe Co., of Los Angeles. Innes runs six retail shoe stores and five leased shoe departments in California.

- International Shoe Co.'s subsidiary, Shoenterprise, recently entered a deal to help finance six of the 10 stores that make up the Spellman Shoe Co. in the states of Washington and Oregon. So far, Shoenterprise has assisted over 100 retailers who had all the qualifications for doing a sales job except the cash. Naturally, such retailers stress International shoes.

- Brown Shoe Co., St. Louis, is continuing to promote its franchise store development—and it's going at it "aggressively," says a company spokesman. In all, Brown now has about 500 of these stores, which concentrate on selling Brown shoes in exchange for help—other than financial—in running the operation.

- **The Pinch**—Some of the smaller manufacturers eye this activity with real unease. They view it mainly as a battle of the giants for a bigger share of the market. Thus, they see General's moves as an effort to offset Brown's purchase of the Wohl chain last year. That deal hurt International and the New England manufacturers, too; they used to sell to the Wohl outlets.

It's true that, except in the case of wholly integrated companies, the bulk of the business still goes through the independent retailers. But an executive of at least one company that is buying or leasing new outlets concedes

# Easy-On, Fast-Dry

## CHEMICAL PROBLEM...

... to help make enamels that combine fast drying and easy brushing—advantages not always found together in the two types of enamels most used today. One type of enamel brushes easier, the other dries faster.

## SOLUTION...

... a new Hercules resin, Pentalyne® B-56. It reacts chemically with the other paint ingredients to favor neither drying speed nor brushing qualities unduly, but to provide the very best combination of both.

## RESULT...

... enamels that dry fast and are easily applied. Manufacturers find these finishes are also easier to process. They can be made from a wide variety of raw materials and are available in all colors from many well-known paint companies.



## Hercules' business is solving problems by chemistry for industry...



... paper, rubber, insecticides, adhesives, soaps, detergents, plastics, paint, varnish, lacquer, textiles, to name a few, use Hercules® synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products, and other chemical processing materials. Hercules® explosives serve mining, quarrying, construction, seismograph projects everywhere.

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Sales Offices in Principal Cities

*There's an  
idea here  
for you!*



## How to untie your packaging problems

Before this packaging improvement, rope was shipped in ordinary boxes, stored in retail backrooms and basements, sold whenever there was a call for it.

Now, this modern H & D corrugated shipping-display box puts rope in its proper place . . . on retail counters. The attractive, colorful display box reminds customers of their rope needs and keeps the coils protected and tangle-free. Inventory problems are simplified . . . impulse sales are quickened . . . rope profits boosted. Here is another packaging problem solved by H & D Package Engineers.

Give your product the advantages of H & D corrugated boxes: easy packing, better product protection, freight savings, economy, increased sales through better display. For the full story, write for the 14-volume "Little Packaging Library." Hinde & Dauch, 5201 Decatur St., Sandusky, Ohio.

**H&D**

**HINDE & DAUCH**  
*Authority on Packaging*

that the movement "is narrowing the market for the other fellow."

• **The Plus Side**—There are obvious advantages: better display with less competition from other makes; a chance to let one line of a manufacturer promote another line in the same store. And though the industry does not cite this as a reason, integration normally offers another advantage to a highly seasonal business that requires a big inventory of sizes and types: The better inventory and production controls that a manufacturer gets when he has a sure outlet minimize losses—for example, a retail loss can be offset by a production profit.

• **Sales Slip**—The somewhat discouraging sales of 1951 no doubt put added pressure on an always competitive situation. For the first time since 1934, sales dropped to less than three pairs per capita. Tanners Council estimates total output—both military and civilian—at about 472-million pairs, a decline of about 8% from 1950's output. High prices and overbuying in 1950 and early 1951 are cited as reasons. But the industry is more cheerful about 1952 prospects. Sharp production cutbacks in the last half of 1951 mean a better inventory position now. Continued high incomes indicate that civilian sales may pick up. And the postwar pickup in the birth rate (BW—Dec. 8 '51, p146) promises to send a lot of small fry to the shoestore.

## MARKETING BRIEFS

The Supreme Court said no to Safeway's request that it decide whether the Capchart Amendment applied to retailers. OPS had turned down Safeway's plea for price relief under Capchart; the amendment didn't apply, OPS said (BW—Sep. 15 '51, p148).

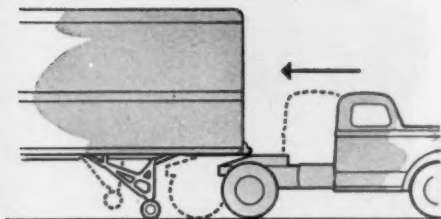
Synthetics for shoes are nosing out leather. In 1947 over 74% of all soles were made of hide; by 1950 the ratio was down to 52%; in 1951 it's put at less than 50%. Tanners Council is working on a plan to raise close to \$1-million to get leather off the hook.

Canada's ban on resale price maintenance, effective Jan. 1, brought a few quick price cuts, mainly on appliances and jewelry. So far, though, there's no sign of a price war. Christmas business was good, one retailer explains. But if anybody starts a war, retailers are all on the alert to follow.

RCA's first home air conditioners (BW—Jul. 21 '51, p94) are going out to distributors this month. Prices of the three models range from about \$250 to about \$400.

# POWDER HAULING

MADE **SAFER** BY  
**FRUEHAUF  
ENGINEERING**



**FRUEHAUF**  
*Full Automatic Supports*  
add Safety — Save Time,  
Effort, Cost.



**D**URING World War II, Fruehauf and Army Ordnance engineers successfully developed the Full-Automatic, Cab-Controlled Van-Semi-Trailer for maximum safety and efficiency in moving explosive powder. Nearly 3,000 of these exclusive Fruehauf units were built. They received universal acceptance by both government and privately operated plants throughout the country.

An improved Fruehauf Powder Haul Van is now available. An outstanding example of Fruehauf engineering and manufacturing experience, it incorporates every possible special safety feature to eliminate human contact with the Trailer and minimize powder hauling hazards.

## Hazards Minimized by these Special Safety Factors

1. All interior body surfaces are of non-sparking non-ferrous metals.
2. Interior walls and doors are lined with laminated wood fastened with brass screws.
3. The sturdy oak floor is fastened by brass bolts to a steel sub floor.
4. Maximum-opening full-width rear doors and optional side doors swing back parallel to Trailer sides for most efficient loading and unloading.
5. All outside panels are completely weather-lapped, and watersheds above doors prevent leakage.
6. All wiring is protected by conduit and weatherproof junction boxes and connections.

## FULLY AUTOMATIC COUPLING

Coupling is completely cab-controlled. The driver simply backs the tractor under the Trailer, which locks the king pin and raises the automatic supports in one motion. There is no cranking.

## FULLY AUTOMATIC UNCOUPLING

Uncoupling is quick, safe, and completely cab-controlled. The driver merely operates a hand lever inside the cab to disengage the king pin, then drives away. Supports are automatically lowered and locked in the down position.

## FULLY AUTOMATIC CONNECTIONS

Lights and mechanical brakes are automatically connected through the hollow king pin during coupling, and automatically disconnected during uncoupling. Brakes are set automatically to prevent rolling when Trailer is uncoupled.

**HUMAN CONTACT IS  
ELIMINATED!**  
**THE DRIVER NEVER  
LEAVES THE CAB!**

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Don't leave the development of these important markets to chance and the whims of the end product manufacturer.

My client has proven that the proper advertising, marketing and merchandising tactics can aid substantially in winning preference, permanence and profits for your product or process in these fields.

Regardless of material or process or the type of end products involved, he can help build this segment of your business on a satisfactory basis—through methods he has applied successfully for fifteen years.

If you are interested in developing or broadening consumer goods uses, please send me information on your product or process and what you would like to accomplish.

I will be glad to arrange a mutually convenient meeting. Principals only.

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New York 19

## Where People Will Live in 1960

	Thousands of Persons*				
	1950 Census Adjusted	1955		1960	
		Low Estimate	High Estimate	Low Estimate	High Estimate
<b>UNITED STATES.....</b>	<b>161,116</b>	<b>188,176</b>	<b>186,170</b>	<b>181,679</b>	<b>180,376</b>
<b>NEW ENGLAND.....</b>	<b>9,364</b>	<b>9,611</b>	<b>10,008</b>	<b>9,648</b>	<b>10,700</b>
Maine.....	924	947	995	966	1,055
New Hampshire.....	539	552	580	552	616
Vermont.....	383	384	404	377	421
Massachusetts.....	4,718	4,811	5,055	4,906	5,359
Rhode Island.....	782	799	839	800	892
Connecticut.....	2,019	2,118	2,225	2,167	2,417
<b>MIDDLE ATLANTIC.....</b>	<b>30,349</b>	<b>31,283</b>	<b>32,865</b>	<b>31,460</b>	<b>35,079</b>
New York.....	14,908	15,420	16,200	15,546	17,335
New Jersey.....	4,842	5,065	5,321	5,159	5,752
Pennsylvania.....	10,598	10,798	11,344	10,755	11,992
<b>EAST NORTH CENTRAL.....</b>	<b>30,583</b>	<b>31,942</b>	<b>33,858</b>	<b>32,686</b>	<b>36,313</b>
Ohio.....	8,002	8,345	8,767	8,508	9,487
Indiana.....	3,966	4,151	4,361	4,236	4,723
Illinois.....	8,738	9,032	9,469	9,119	10,168
Michigan.....	6,412	6,832	7,170	7,069	7,903
Wisconsin.....	3,464	3,582	3,763	3,614	4,030
<b>WEST NORTH CENTRAL.....</b>	<b>14,185</b>	<b>14,337</b>	<b>15,082</b>	<b>14,188</b>	<b>15,286</b>
Minnesota.....	3,007	3,080	3,234	3,078	3,432
Iowa.....	2,444	2,667	2,802	2,631	2,924
Missouri.....	3,889	4,037	4,242	3,998	4,457
North Dakota.....	625	619	650	598	666
South Dakota.....	656	657	690	641	715
Nebraska.....	1,335	1,331	1,396	1,296	1,465
Kansas.....	1,908	1,936	2,034	1,916	2,157
<b>SOUTH ATLANTIC.....</b>	<b>21,007</b>	<b>22,363</b>	<b>23,496</b>	<b>22,101</b>	<b>25,286</b>
Delaware.....	320	340	357	351	391
Maryland.....	2,327	2,508	2,635	2,625	2,927
Dist. of Columbia.....	778	805	846	827	923
Virginia.....	3,260	3,465	3,640	3,589	4,002
West Virginia.....	2,032	2,082	2,188	2,086	2,326
North Carolina.....	4,056	4,253	4,460	4,339	4,838
South Carolina.....	2,117	2,193	2,304	2,216	2,468
Georgia.....	3,443	3,540	3,719	3,552	3,960
Florida.....	2,764	3,177	3,338	3,518	3,923
<b>EAST SOUTH CENTRAL.....</b>	<b>11,833</b>	<b>11,622</b>	<b>12,419</b>	<b>11,970</b>	<b>13,286</b>
Kentucky.....	2,944	2,996	3,147	2,985	3,329
Tennessee.....	3,314	3,445	3,619	3,502	3,905
Alabama.....	3,088	3,174	3,337	3,202	3,570
Mississippi.....	2,187	2,205	2,316	2,181	2,432
<b>WEST SOUTH CENTRAL.....</b>	<b>14,556</b>	<b>15,980</b>	<b>16,831</b>	<b>15,283</b>	<b>17,006</b>
Arkansas.....	1,932	1,927	2,024	1,887	2,104
Louisiana.....	2,699	2,815	2,957	2,868	3,198
Oklahoma.....	2,250	2,227	2,340	2,168	2,418
Texas.....	7,674	8,090	8,500	8,330	9,288
<b>MOUNTAIN.....</b>	<b>5,076</b>	<b>5,466</b>	<b>5,241</b>	<b>5,701</b>	<b>6,388</b>
Montana.....	595	611	642	608	672
Idaho.....	594	627	659	643	717
Wyoming.....	285	300	316	307	343
Colorado.....	1,323	1,407	1,476	1,449	1,616
New Mexico.....	675	744	781	787	877
Arizona.....	750	849	892	929	1,036
Utah.....	694	750	787	786	876
Nevada.....	159	177	195	195	215
<b>PACIFIC.....</b>	<b>14,391</b>	<b>16,307</b>	<b>17,133</b>	<b>17,980</b>	<b>19,980</b>
Washington.....	2,341	2,554	2,684	2,709	3,020
Oregon.....	1,533	1,700	1,786	1,831	2,041
California.....	10,517	12,053	12,663	13,380	14,919

\* Members of the services are included in totals for states in which they lived when inducted.

The figures above show the Census Bureau's latest bet on the range of the size of your market, state by state, in 1955 and 1960. As in the decade of the '40s (BW-Dec.22/51,p73), the Pacific states still walk off with the prize, though their rate of growth will level off from its 1940-50 pace. Their expected increase over 1950 population

ranges from 13.3% (low projection) to 19.1% (high projection) in 1955, and from 24.6% to 38.8% in 1960. The slowest gainers promise to be the West North Central states—with an estimated increase ranging from only 1.1% to 6.3% in 1955, and from no increase at all to 11.4% by 1960. But the East will still claim the heavy population.



**When rubber  
shatters like pottery...**



*Natural rubber ball, chilled to minus 320.4° F., shattering on impact. Electronic flash tripped by microphone 1.035 milli-seconds after contact. Photos by Ralph Bartholomew, Jr.*

Natural rubber will shatter, up in sub-stratosphere planes, at minus 50°F. Don't shiver; that's warm compared to temperatures some chemical equipment must take in stride.

Put yourself in the shoes of the man who designs an oxygen vaporizer. It must test 4200 p.s.i. at minus 300°F.!

Or a helium liquefier that operates within 4 degrees of *Absolute Zero*, (which is exactly 459.6° below zero Fahrenheit).

Now that's cold. At temperatures like that, an orange spalls off in little chips, like granite. Steel brittles like a bit of glass.

In such a fantastic Jules Verneland, you discover that *one metal* and its alloys keep their toughness—ductility—clear down to 455° below zero F. Even the "impact properties of weldments are essentially insensitive to temperatures as low as minus 320.4°F."

So let's assume your problem is on the cool side, starting at 100° below zero and dropping off from that. You find the answer—as did the designers of the oxygen vaporizer and the helium liquefier mentioned above —

in Nickel or a nickel alloy. (These two jobs were solved by Monel, an Inco Nickel Alloy.)

#### ***Let's Talk about Your Problem***

Is it complicated too by sub-zero cold—or high heat, or corrosion, or some other difficulty?

Now is the time for us to get together with you or your engineers while our staff of metal specialists can carry out whatever research is needed to solve it. You can mail the outline of your problem direct to them for study by addressing it to "Forward Planners" at The International Nickel Company, Inco Nickel Alloys Dept., 67 Wall Street, New York 5, N. Y.

Then the answer can be ready at your hand when these critical times are over, and Inco Nickel Alloys are available in any quantity for any use again.

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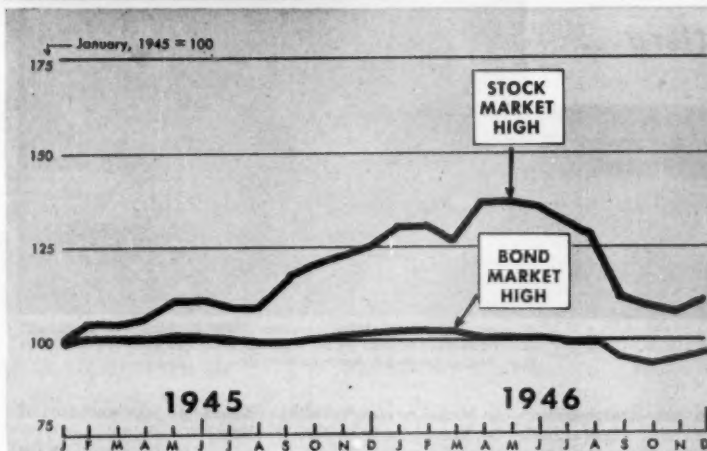
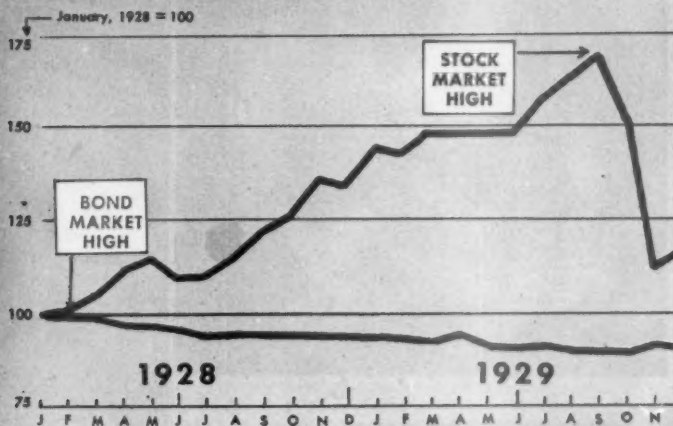


**Nickel Alloys**

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Nickel • Low Carbon Nickel • Duranickel®  
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# FINANCE

Weakness in bonds forecast the end of the 1929, 1936, and 1946 stock market booms



Date: Standard & Poor's Corp.: Dow-Jones.

Will  
history  
repeat  
itself?



## Wobbly Bonds Hint Stocks May Fall

Investors have a new worry. And this, perhaps, is one more than they have any use for as the stock market tries to riddle 1952 prospects and chart its course ahead.

Just when the congenital bears are arguing that the poor, old bull market is on its last legs, the bond market adds its own note of discouragement. The decline in bond prices is there for everyone to see. And there is no getting around the fact that, in times past, such a move in bonds has spelled the end for a sustained bull market in stocks.

Maybe, mourn the nervous Nellies,

this stock market will disintegrate the same way.

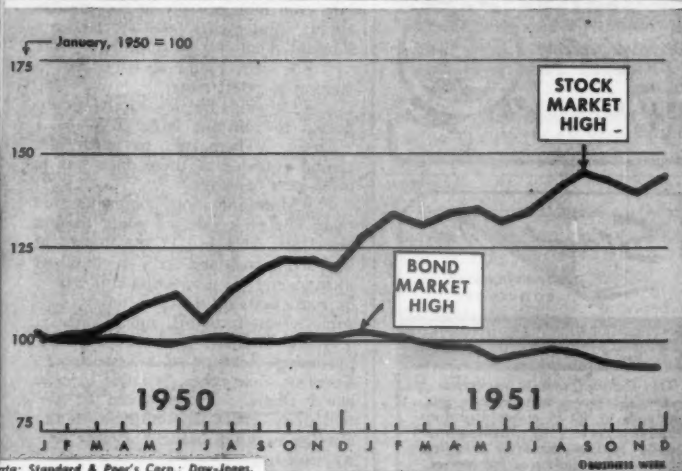
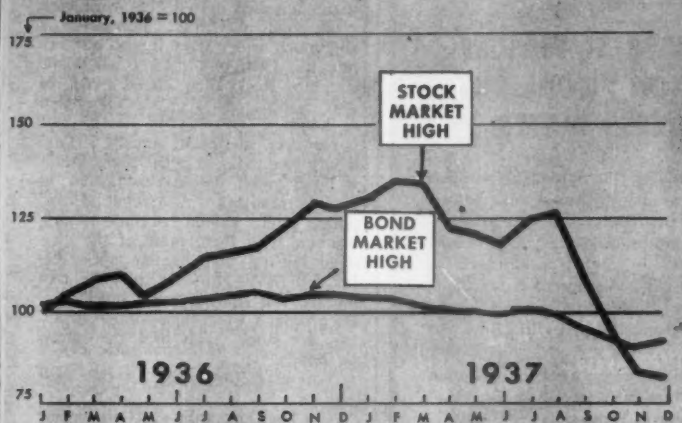
• **Thrice Before**—Chart, as **BUSINESS WEEK** has done above, the movements of both bonds and stocks during the late phases of the preceding three bull markets—those that finally burst apart in 1929, 1937, and 1946. Then this pattern emerges: When bonds began to show price weakness, stock prices also sooner or later started to retrogress—and, as is only natural, in far more violent fashion.

Chart, also, the action of the same two types of securities in the last two years of the bull market that has been

under way since mid-1949. Once again the same pattern could be emerging. Obviously, this poses a real question: Is history repeating itself?

In the vicinity of Broad and Wall you can get a wide variety of answers to that question. Some crystal ball readers say yes. Others aren't so sure, but think the situation should be watched closely from here on; just as many more indignantly deny that there need be any correlation between bond and stock prices.

On one point, there is some unanimity: Even the most bullish Streeters admit that a sharply rising trend of



Source: Standard & Poor's Corp.; Dow-Jones.

## But Bulls Say It Isn't So

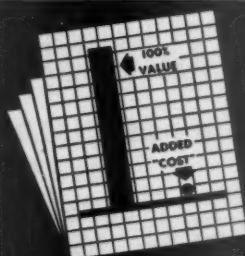
interest rates is not likely to help the stock market generally. In fact, they admit that the trend already has injected new uncertainties.

• **Preferreds**—Take preferred stocks, for example, which now account for some 30% of all the issues listed for trading on the Big Board. These, paying fixed dividends, necessarily are sensitive to money rates. Last year saw preferreds—measured by Standard & Poor's preferred stock index—suffer a 10% decline. In the process, the group average reached its lowest level since mid-1942. As a result—since yields of fixed dividend issues obviously rise as

their prices drop—they are now selling on a 4.32% basis compared with a 3.85% return a year ago.

Dropping bond prices and rising stock values—also evident in 1951—brought narrowing in the spread between bond and common stock yields. Barron's 10 highest-grade bond yield index, for instance, rose from a 2.74% basis to 3.17%; at the same time the yield on Dow-Jones industrial stock average was declining from 6.63% to around 5.72%.

• **Narrower Spread**—It's true, of course, that the spread remains wide by pre-World War II comparisons. At the



## SO MUCH for SO LITTLE

For over 100 years, L. L. BROWN record and letter papers have been widely used for governmental and business records which must withstand time and hard handling; and for business and professional correspondence which must be outstandingly impressive.

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and  
**LETTER**  
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### how to RECLAIM INDUSTRIAL WASTES SOLVE POLLUTION PROBLEMS CONSERVE PROCESS WATER



Bulkley-Dunton's highly specialized Waste Recovery Engineers have helped save millions of dollars for American industry. By conserving process water, they have helped plants to continue operation — otherwise threatened to shut down due to water shortage. They have solved water pollution problems, saving plants from costly litigation and harassment.

If you have a waste recovery, pollution or water conservation problem, Bulkley-Dunton can solve it. Write today to

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## MODERN TIME AND COST SAVERS BUILT BY...

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GRAVITY & POWER  
CONVEYORS



### HANDIDRIVE Belt and Live ROLLER Conveyor UNITS

These standardized units can be used as extensions to present conveyors, as individual conveyor units, or to build a complete flow system of belt, line roller, and gravity conveyors. The Handidrive "package" consists of drive and takeup units, end roller assemblies, intermediate framework, supports and hangar — everything needed to make complete conveyors. Flexible and adaptable to many needs.

### STANDARD CONVEYOR COMPANY

General Offices: North St. Paul, Minnesota  
Sales and Service in Principal Cities

### Save Time Loading — UNLOADING with the EXTENDOVEYOR

This compact, mobile, easily maneuverable power-belt conveyor unit extends to 46' in either direction and retracts to 9' 10". Reaches into cars, trucks, trailers. Handles boxes, bags, bundles, cartons, crates, cases weighing up to 150 lbs. Available in two models — 1 way stretch and 2 way stretch — and 4 sizes. Write for Extendoveyor Bulletin — address Dept. BW-12.



Write for Bulletin  
63-8, address  
Dept. BW-12.



height of the 1929 bull market, the Dow-Jones industrial average offered a yield of only 3.31%, compared with 6.12% from bonds. In March, 1937, shares returned only 3.71% with high grade bonds at 3.18%. The spread is also much wider than it was just before the 1946 bull market fell apart. Common stocks then offered a yield of only 3.38%, against 2.6% obtainable on bonds.

However, no spread actually is safe. That's true today as in the past. What if bond yields should rise further in coming months? And what if corporate profits should continue to fall, bringing with them more of the dividend cutting that became noticeable last fall (BW—Nov.17'51,p144)? Obviously, this squeeze could quickly reduce today's wider-than-normal advantage for stock yields over the return on bonds.

Various factors could set this moving:

- High operating costs are already hurting earnings and are expected to bite even more sharply in the months ahead. And higher taxes are taking a substantial cut of what earnings are left.
- A sixth round of wage rises is coming to boost costs.
- Demands for new capital are expected to continue large (BW—Jan.5 '52,p92). There isn't so much idle capital available as there once was to meet such demands.

• More and more companies that make civilian goods are going to find their sales hurt by (1) the impact of high living costs and taxes on consumer income, and (2) production cuts caused by restrictions on scarce materials, consumer credit restraints, and the like.

• **World Events**—What would be the psychological effect of a cease-fire in Korea or some other favorable turn in world affairs? What would be the temporary effect on business if the election next fall brought a more conservative national administration? And how about stocks, now at the highest level since the Big Bull Market.

Even the more optimistic Streeters admit that all those bearish factors are in the picture. But they think they will play a minor role in the 1952 market. They're far outweighed, the optimists think, by a lot of favorable factors:

- Continuation of the inflationary forces that in recent years have chopped the purchasing power of the dollar to 54% of its 1935-39 average.
- A sharp increase in general business activity as a result of (1) a stepping up of arms production; (2) industry's huge expenditures for new production facilities; and (3) a sharp increase in consumer spending due to high employment and the record liquid asset holdings of individuals.
- A further increase in the amount

of stock bought for "strong box holding," rather than for speculation, due to the growing popularity of common stocks as purchases by pension funds, trust funds, life insurance companies, and the like. A sharp growth is also expected in the purchase of commons by the open-end investment trusts.

• **Hills and Valleys**—All this doesn't mean that even the most bullish Streeters expect the market to zoom to new highs immediately. They don't. Neither do they look for all stocks to share in whatever rise is to come. They expect at best it will be a selective market.

When it comes to dividends, they expect 1952 to prove pretty nearly as good as last year when such disbursements added up to around \$9-billion, (only some 2% under 1950's record-breaking level). Recent rates, they note, are still being earned by a margin wide enough to assure their continuance unless earnings dive sharply—which they think is unlikely.

That belief may prove too sanguine, though:

- Business must continue to plow back a huge amount of earnings to finance its still enormous capital expenditures.

- It needs more working capital, to carry swollen inventories and receivables.

- In the first half of this year it is going to have to pony up 70% of its high 1951 federal tax bill.

So keep a close eye on dividends. Their trend means much today with the bond yield expected to continue its recent sharp rise at least for a time. The nearer the bond yield comes to the yield common stocks offer, the closer the stock market is to trouble.

## FINANCE BRIEFS

**PUDs blocked:** As expected (BW—Jan. 5'52, p88), the Western Voluntary Credit Restraint Committee has labeled inflationary the proposed revenue bond issue of seven Washington public utility districts. The proceeds would be used to buy electric properties of Puget Sound Power & Light Co. Now it's unlikely underwriters will bid for it.

**The rising cost of money:** Robertshaw-Fulton Controls Co. has sold privately \$7-million of sinking fund notes, due in 15 years, for 3½%. Mutual Life Insurance boosted rates on policy loans.

**Transamerica Corp.,** bank holding company, has made another distribution to stockholders of its Bankamerica stock. This time the dividend will be one Bankamerica share for each 20 Transamerica shares. That will cut its holdings in Bankamerica to 5.6%.

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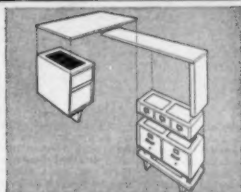
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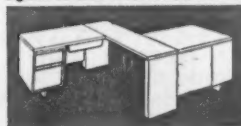
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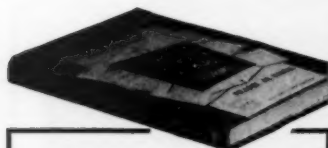


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added dioramas and other exhibits that show not only how the Exchange works, but what lies behind the shares of stock it trades. Several big industrial companies and the Assn. of American Railroads helped out.

Keith Funston, new president of the Exchange (BW-Oct. 20 '51, p. 27), says he expects that in 1952 about 300,000 visitors, twice as many as last year, will

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file through the reception rooms and absorb the exhibits.

Funston wants to make the most of this chance to impress on them that Main Street, not Wall Street, owns American industry. "I'd like," he says, "to take some of the Soviet's propaganda boys through these quarters and show them what public ownership of industry really is."

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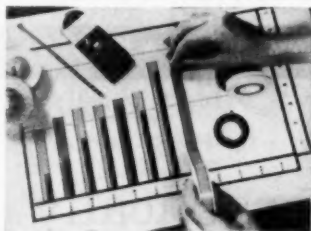
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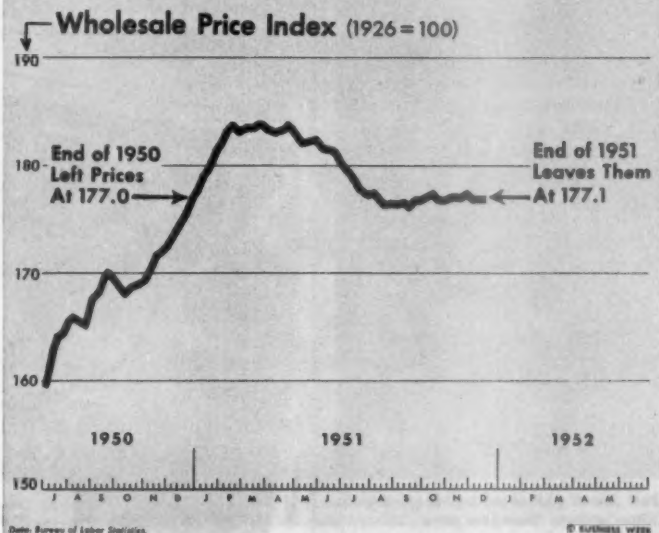
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## THE MARKETS



## Consumers Hold the Price Key

The wholesale price index holds steady—about seven points below the March peak. It could go even lower, unless the public decides to spend a bigger hunk of its rising income.

Prices, after finishing 1951 almost exactly where they started, now are falling behind their year-ago level.

That, however, may sound more important to the anti-inflation drive than it really is. A glance at the chart (above) will show that this isn't due to any decline in prices now; it's simply because prices were rising so fast early in 1951.

Prices, in this case, are represented by the broad average of about 900 commodities compiled by the Bureau of Labor Statistics. This index has, to all practical purposes, been standing still ever since last August in the neighborhood of 177—or 77% higher than it was in 1926.

The present level represents a come-down of about seven points from the peak of 184.2 reached last March—the highest point ever notched by this slow-moving index. The previous postwar high was 169.9 in 1948.

• **\$64 Question**—All of which raises the question: Where are prices going now?

There's a good deal of nervousness over the near-term outlook. Most of it hinges on two major considerations:

• Will consumers start spending a more normal portion of their incomes? These incomes have been rising steadily (although less rapidly than a year ago). Moreover, the rise in personal income will accelerate when the new round of wage increases begins to be reflected.

• Will consumers—and corporations—hold down their spending until after the pauperizing effect of high income tax payments Mar. 15 has worn off?

• **Consumer Calls the Deal**—These worries are very real after last year's experience. Prices started down last year right after the income tax date and continued sinking through July. But there was more to it than that poverty-stricken feeling after meeting the tax bite. The consumer was in the saddle, and he wasn't happy with the level of prices.

Consumers had overbought on the war scare. Merchants had overstocked, thinking that this new pattern of consumer demand would continue. But goods didn't get scarce. Prices softened. Then the man in the street decided he could live off the pantry shelf for a

while. Business had to work off top-heavy inventories, all the way from the manufacturing down to the retailing level.

All this added up to the consumer goods recession of 1951. And it accounts for businessmen's concern today over what consumers are going to do and the effect taxes are going to have in the next few months. It would be no

surprise if these uncertainties should persist for some time.

• **Blue Sky**—But there is a bright side. Business inventories have been brought down to manageable—if not conservative—levels. And consumers have been “oversaving” for an unusually long time—more than nine months. Prices would certainly stiffen if business and consumers started to buy all at once.

## 1951 Stock Market: Final Box Score

—Standard & Poor's Weekly Indexes (1935-39 = 100)—

Stock Group	1950 Close	1951 Range		1951 Close	1951 Gains	
		High	Low		Maxi- mum	At Close
Soft coal.....	271.7	479.2	387.3	366.2	76.4%	71.6%
"War" stocks.....	169.8	260.2	212.7	253.6	53.2	49.4
Tires, rubber.....	292.9	450.4	295.0	431.9	53.8	47.5
Fertilizers.....	337.1	500.8	335.5	469.3	48.6	39.2
Oil.....	230.4	317.5	263.3	317.2	37.8	37.7
Finance companies.....	97.3	132.0	96.9	130.0	35.7	33.6
Ethical drugs.....	184.7	274.1	180.8	245.3	48.4	32.8
TV, electronics.....	199.1	270.3	198.5	262.5	35.8	31.8
Mining, smelting.....	108.0	140.1	104.9	134.9	29.7	24.9
Metal containers.....	74.2	94.5	75.1	89.9	27.4	21.2
Building materials.....	135.0	170.0	137.9	160.7	25.9	19.0
Copper.....	166.9	200.5	155.7	195.9	20.1	17.4
Electrical equipment.....	126.0	159.1	127.8	147.0	26.3	16.7
Natural gas.....	185.5	231.3	187.8	214.3	19.3	15.5
Air transport.....	339.4	402.4	318.3	391.5	18.6	15.4
Chemicals.....	209.9	258.2	209.7	240.4	23.0	14.5
Office, business equipment.....	202.8	237.4	203.0	231.7	17.1	14.3
All industrials.....	175.1	206.7	178.3	199.1	18.0	13.7
"Peace" stocks.....	164.5	190.6	168.2	186.8	15.9	13.6
Proprietary drugs, cosmetics.....	135.5	168.0	138.7	153.7	24.0	13.4
Shipping.....	415.9	474.7	431.0	471.3	14.1	13.3
Utility operating companies.....	106.8	121.5	110.9	121.0	13.8	13.3
<b>COMPOSITE INDEX.....</b>	<b>162.0</b>	<b>188.6</b>	<b>164.9</b>	<b>182.4</b>	<b>16.4</b>	<b>12.6</b>
Capital goods.....	168.6	199.0	171.1	189.2	18.0	12.2
Agricultural machinery.....	160.3	187.6	161.9	178.7	17.0	11.5
Motion pictures.....	145.7	182.9	139.6	160.9	25.5	10.4
Lead, zinc.....	128.9	150.0	114.9	141.6	16.4	9.9
Metal fabricating.....	146.1	174.9	138.5	160.2	19.7	9.7
Automobiles.....	181.3	207.8	179.3	194.9	14.6	7.5
Low-priced commons.....	198.3	235.5	181.8	211.6	18.8	6.7
Machinery.....	153.4	170.6	148.0	163.3	11.2	6.5
Auto parts, accessories.....	139.6	158.3	140.2	148.0	13.4	6.0
Glass containers.....	129.2	148.3	126.9	137.0	14.8	6.0
High-grade commons.....	138.1	150.0	138.4	146.0	8.6	5.7
Mail order, general chains.....	233.2	260.4	236.7	246.6	11.7	5.7
Rayon.....	539.6	634.3	518.9	565.9	17.6	4.9
Consumer goods.....	160.2	174.3	160.6	166.9	8.8	4.2
Shipbuilding.....	218.2	245.8	196.6	226.4	12.6	3.8
Paper.....	560.0	622.9	547.9	578.4	11.2	3.3
Railroads.....	144.5	163.0	135.2	148.6	12.8	2.8
\$4, 10¢, \$1 stores.....	125.0	132.1	122.8	127.7	5.7	2.2
Shoes.....	116.4	125.5	112.6	118.7	7.8	2.0
Gold mining (U. S.).....	54.7	67.6	55.1	55.1	23.6	0.7
Leather.....	192.8	238.4	181.7	192.0	23.7	-0.4
Sugar.....	120.4	132.2	118.2	119.0	9.8	-1.2
Department stores.....	264.4	287.4	260.2	260.2	8.7	-1.6
Confectionery.....	122.7	129.2	118.8	120.6	5.3	-1.7
Steel.....	209.9	236.5	192.4	204.9	12.7	-2.4
Food.....	148.5	156.3	142.3	144.2	5.3	-2.9
Distillers.....	485.8	510.9	466.3	469.5	5.2	-3.4
Aircraft manufacturing.....	179.7	196.0	151.9	172.3	9.1	-4.1
Railroad equipment.....	104.8	110.7	96.0	99.8	5.6	-4.8
Printing, publishing.....	119.8	134.4	109.7	113.4	12.2	-5.3
Food chains.....	241.4	254.9	222.9	228.0	5.6	-5.6
Carpets, rugs.....	136.4	160.8	122.2	127.2	17.9	-6.7
Tobacco.....	80.3	82.9	74.3	74.3	3.2	-7.5
Cotton goods.....	328.8	338.6	281.1	297.7	3.0	-9.5
Apparel.....	132.1	141.5	118.5	118.5	7.1	-10.3
Soft drinks.....	106.5	116.8	92.9	95.4	9.7	-10.4
Woolen goods.....	156.6	168.5	119.3	135.0	7.6	-13.8

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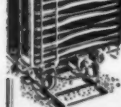
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### DIVIDEND NOTICE

The Board of Directors today declared an "extra" dividend of Twenty-five Cents (25c) per share on the Capital Stock, payable Dec. 29, 1951, to stockholders of record Dec. 21, 1951.  
C. N. Wesley  
Treasurer  
December 12, 1951

# DEFENSE BUSINESS

## Auto Makers Win

- Auto industry will get enough steel for just 900,000 cars, copper and aluminum for 800,000.
- That's less than the million asked for in materials allocations pleas for second-quarter 1952.
- But auto makers aren't too distressed, feel they can stretch metals by using substitutes.
- As it is, they're a lot better off than other consumer goods producers, slated for even slimmer copper rations.

What looked last week like a major triumph for the automobile industry in its battle with Washington controllers over materials allotments for the second quarter of 1952 has turned out to be only a partial victory. But the auto makers aren't shedding any tears.

The industry got the final word on allotments this week from Defense Production Administrator Manly Fleischmann. What the motor makers get for April-June will be enough steel to make 900,000 passenger cars, but only copper and aluminum for 800,000. Even if they can stretch out these metals by using substitute materials, they can produce no more than 930,000 cars, Fleischmann decreed.

● **Worth It**—Though they aren't shouting about it, the auto manufacturers have good reason to consider the fight they made on allocations well worth the effort. In a hectic session with Fleischmann and his boss, mobilization director Charles E. Wilson, they pleaded for sufficient copper, steel, and aluminum to produce a million cars in the second quarter (BW—Jan. 5'52, p21). They even promised to accept deep slashes in their allotments after July 1 if granted this three-month breathing spell.

But there was more than a suspicion that the million-car proposal was tossed out largely for bartering purposes. What the auto makers wanted most was to raise the production limitation and copper allotment that Wilson and Fleischmann originally planned to impose. These were: an 800,000-car ceiling on output, with copper allotments sufficient for only 640,000 at the present rate of consumption per car by the industry.

● **Second Best**—The proposed copper allocation would have meant a helter

skelter scramble by the industry for substitute metals—even to reach the 800,000-unit ceiling. As it is now, design changes and substitutions the industry promised to make later will have to be made in the second quarter. Even so, the ceiling of 800,000 looked even worse to the manufacturers. It would catch them just as they were geared for the million-car production rate permitted by first-quarter allotments. And the second quarter is traditionally a period of good customer demand.

● **Villain Copper**—The pinch on the auto industry stems entirely from soaring military demands for copper. Every other user of the red metal is in for cuts in allotments, too.

Fleischmann defended his original auto production ceiling on the basis that the slash in copper alone would not be sufficient. To keep undue proportions of the metal out of cars, you have to cut down on auto components that consume large quantities. The only way to do that, he argued, was to hold down the demand for components from auto production lines. Like the auto manufacturers themselves, Fleischmann has great confidence in the industry's ability to go much further than they have with substitute materials.

● **Gave In**—The pressure from auto workers, Congress, even from other mobilization officials finally forced Fleischmann to give way on the auto production ceiling. But he clung to a much lower copper allotment until a few hours before he formally announced the 800,000-car rate.

There's little doubt that the manufacturers will be able to turn out their full 930,000-car quota in the second quarter. But the 130,000-car imbalance in the copper allotment will have

to be made up almost solely by substitution and design changes. The manufacturers will use up virtually all their copper inventories in January-March to produce a million cars. They have copper enough for only 930,000 this quarter.

• **Not So Lucky**—Producers of other consumer durables, already on slimmer rations of copper than the auto makers, will get even less in the second quarter. Product-by-product allocations for these goods haven't been set yet, but here's how they are shaping up:

• **More essential durables**—including refrigerators, radios, and most major appliances—will get 45% of their pre-Korea steel supply, about 28% of the copper and aluminum. For the first quarter these producers got an average of 50% of their pre-Korea steel, 35% of the lighter metals.

• **"Less essential" items**—such as jewelry, toys, sporting goods, venetian blinds—will get a better break than in the first quarter, when they were cut back to 20% of pre-Korea aluminum, 10% of copper. Most of them will get about 20% of their normal copper supply, a little more aluminum.

The controllers figure the net effect of this juggling of consumer goods allotments will still reduce over-all metal allotments by about 12%. The copper savings will be something less—closer to 5%.



## New Head Man in NPA

Henry H. Fowler moved up a notch this week, from Assistant Administrator to Administrator of the National Production Authority. Manly Fleischmann stepped out of his NPA spot to give full time to his other job as chief of Defense Production Administration. Fowler and Fleischmann were both assistant counsels of the War Production Board in World War II.

## CHECKLIST:

### Defense Regulations

The following listing and condensed description cover all the materials and price-control regulations issued by the defense agencies during the preceding week.

### Materials Orders

**Tool steel:** Redefines "tool steel" to exclude plain carbon steel and adds hand hacksaw blades to the list of items in which Class B high-speed steel is prohibited. M-80, Sched. B as amended (Dec. 19).

**Tin cans:** Permits users of tin cans for packaging purposes to adjust their tin can bases for the first three quarters of 1952 themselves without the necessity of NPA determining such bases for them. Revokes Direction 1, which established a method of averaging quarterly tin can bases. M-25, Dir. 3 (Dec. 29); M-25, Dir. 1 Revocation (Jan. 1).

**Marine MRO:** Increases the use of DO-R-9 rating to obtain minor capital additions up to \$1,000 each instead of \$750. Also updates the order by changing all references to the "fourth calendar quarter of 1951" to "first calendar quarter of 1952." M-70, Amdt. 1 (Dec. 28).

**Glass containers:** Revokes the basic order controlling the use and manufacture of glass containers. However, they are still subject to inventory restrictions limiting users to a practicable minimum working inventory. M-51 and Sched. 1 Revocation (Dec. 29).

**Skins and hides:** Removes wetting controls on horsehides, domestic goat-skins, deerskins, skivers and fleshers (sheepskin splits). Skins still controlled are cagretta, shearling, kangaroo, imported goatskin, and sheepskin. M-62 as amended (Dec. 29).

**Tubular goods:** Restricts distribution of oil-country tubular goods including casing, tubing, and drill pipe except on authorized controlled materials orders. M-6A, Sched. 2 (Dec. 28).

**Chemical wood pulp:** Raises the authorized inventory on North American unbleached kraft pulp from a 45-day supply to a 60-day supply; permits carryover from one quarter to the next of unused authorized consumption of market chemical wood pulp to the extent of 10% of base consumption; changes the method of reporting monthly wood pulp production; and provides a base period for allowable consumption of the first quarter of 1951. M-72 as amended (Dec. 29).

**Passenger cars:** Formally extends the

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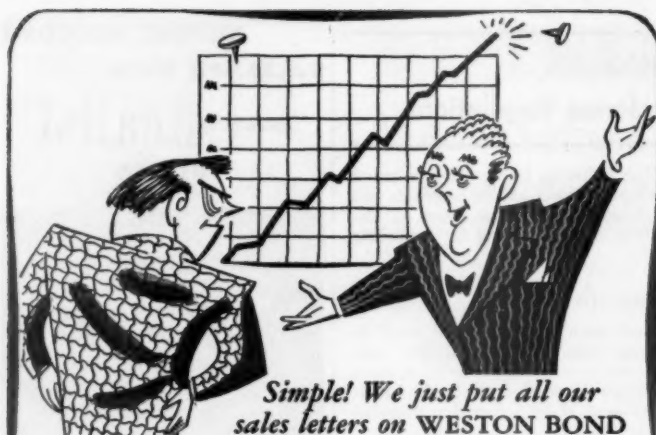
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"percentage-of-industry ranking" of automobile manufacturers into the first quarter of 1952. M-68, 1 mdt. 1 (Dec. 28).

**Consumer durable goods:** Revokes two obsolete directions that were originally issued to apply to special situations relative to the use of iron and steel, copper, and aluminum in consumer durable goods. M-47A, Dir.-1 and 2 Revocation (Jan. 1).

**Sulfur and sulfuric acid:** Restricts the use of sulfur to 90% of the use during calendar year 1950, provides a new sulfuric acid order designed to prevent maldistribution of sulfuric acid, and requires each producer to offer for sale each month a percentage of his scheduled monthly production of sulfuric acid equal to the percentage that he sold in 1950. M-69 as amended: M-45, Sched. 3 Revocation; M-94 (Dec. 29).

**Steel distributors:** Revokes the steel warehouse order, and distributors are now subject to provisions of M-6A, M-6, Dirs. 1, 2, and 3 Revocation (Jan. 1).

**Railroad equipment:** Requires railroad equipment makers to report not later than the 15th day of the first month of each calendar quarter their proposed production and delivery schedules for the succeeding quarter; and not later than the fifth day of each



### Record Lighting System

Record clerks in a big U.S. government warehouse in Chicago are equipped with headlights powered by rechargeable batteries. This miner's gadget provides ample light, eliminated need of a new \$20,000 lighting system.

month their actual deliveries for the preceding month. M-95 (Jan. 4).

**Basic CMP:** Revises and amends basic rules covering the Controlled Materials Plan. Tightens the self-authorization procedure by which small users obtain steel, copper, and aluminum; permits manufacturers to accept shipment of controlled materials on which delivery has been delayed until a subsequent quarter without charging the shipments against the allotments for the later quarter; and outlines the conditions under which controlled materials in inventory may be used in addition to the quantities allotted in the production of "Class B" products. CMP Reg. 1, Dir. 1 as amended; CMP Reg. 1, Amdt. 1; CMP Reg. 1, Amdt. 2 (Jan. 5).

**Chlorine:** Amends basic chlorine order to provide chlorine deliveries for public health purposes in 1952. M-31, Amdt. 1 (Jan. 7).

**Rubber:** Revokes a supplement to basic rubber order regarding manufacturing specifications for tires and tubes and industrial rubber products since these were superseded by the amended order Mar. 1. M-2, Supp. 1 Revocation (Jan. 7).

## Pricing Orders

**Retailing:** Simplifies the establishment of new retail outlets by chain, department, and individual stores and permits noncentral pricing chains to price centrally and uniformly. CPR 7, Amdt. 12; CPR 7, Amdt. 7 to SR 1 (eff. Dec. 31).

**Nash passenger automobiles:** Sets up basic retail dollars-and-cents prices for Nash passenger automobiles and for extra, special, or optional equipment sold with them. CPR 83, Sec. 2, Spec. Order 10 (eff. Dec. 31).

**Machinery:** Permits manufacturer to calculate his overhead adjustment factor for his entire business without first calculating individual dollars-and-cents overhead adjustment factors for each commodity he makes. CPR 30, SR 1, Rev. 1, Amdt. 1 (eff. Dec. 31).

**Rare whiskeys:** Exempts rare, old, pre-Prohibition packaged whiskeys from price control. GOR 7, Amdt. 9 (eff. Jan. 3).

**Los Angeles rack price gasoline:** Permits resellers of Los Angeles rack price gasoline to pass on permitted increases in costs to their purchasers even if sold outside the basin area. CPR 17, Amdt. 1 to Supp. Reg. 1 (eff. Dec. 29).

**Dormant bank accounts (Md.):** Exempts from price control the charges against abandoned accounts that may be made by banks, trust companies, and savings institutions in the state of Maryland. GOR 14, Amdt. 5 (eff. Dec. 29).

**Coke and coal chemicals:** Extends

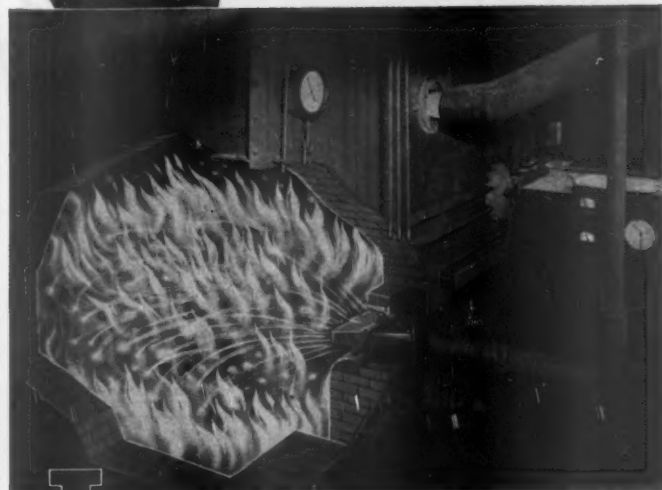


We saved 33.9% on fuel alone with this Iron Fireman method of coal firing

says Mr. H. A. Quinn,

Manager Toledo Laundry, Toledo, Ohio

More steam for less money—plus the Iron Fireman Pneumatic Spreader stoker's ability to follow a fluctuating load and eliminate coal handling has resulted in the installation of 3 units by the owners of this company. Mr. Quinn says, "Since installing Iron Fireman equipment our savings in fuel alone have been 33.9%. Laundry processing equipment temperature has increased from 337°F. to 353°F. with improved quality of production."



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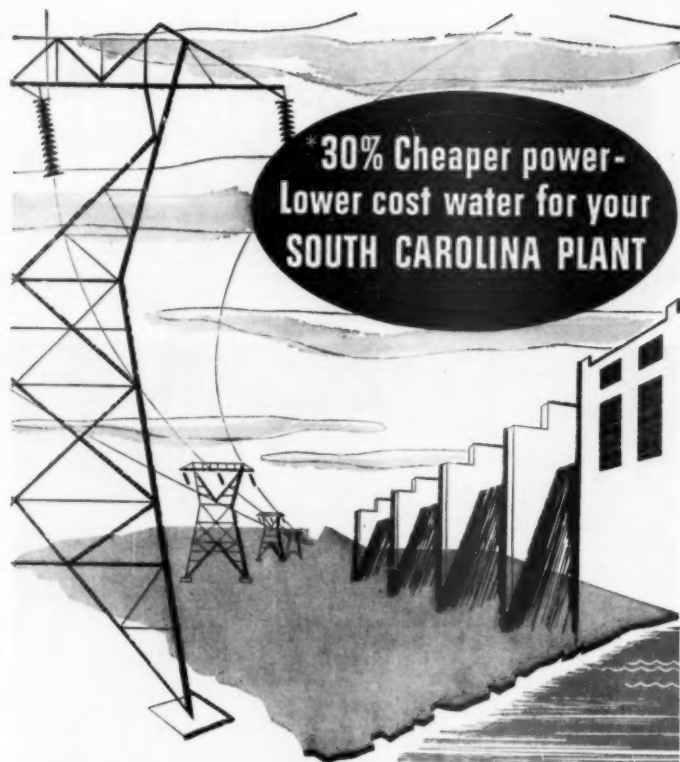
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Research, Planning and Development Board Dept. BW 1—Columbia, South Carolina

# South Carolina



until Feb. 29, 1952, the expiration date of the regulation governing ceiling prices of coke, coal chemicals, and coke oven gas. GCPR, SR 13, Amdt. 5 (eff. Dec. 31).

**Eastern railroad ties:** Extends until Feb. 1, 1952, the temporary exemption from price control of untreated railroad crossties and switch ties produced in the eastern half of the U.S. GCPR, SR 68, Amdt. 1 (eff. Dec. 29).

**Spirits and wines:** Extends until Feb. 1, 1952, the mandatory effective date of the ceiling price regulation for imported and domestic distilled spirits and wines sold in packages for off-premise consumption. CPR 78, SR 2, Amdt. 1 (eff. Dec. 29).

**Government sales:** Extends until Feb. 29, 1952, the temporary suspension from GCPR sales of certain U.S. government property. GCPR, SR 72, Amdt. 1 (eff. Dec. 31).

**Alaska sawmill logs:** Extends until Mar. 31, 1952, the temporary exemption from price control of sawlogs produced and used in Alaska. GCPR, SR 55, Amdt. 1 (eff. Dec. 29).

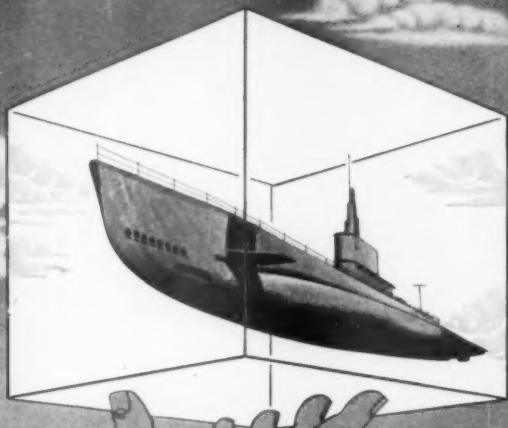
**Machine tools:** Permits manufacturers to compute increases in their costs for overtime labor and shift premium hours, and increased subcontracting, so that any modification in their ceiling price for each fiscal quarter can be expressed as a single change. CPR 30, SR 2, Rev. 1, Amdt. 4 (eff. Jan. 9).

**Machinery pricing:** Permits manufacturers of certain new commodities and manufacturers starting in business after Jan. 1, 1950, who are unable to determine ceiling prices under CPR 30 without applying to OPS, to continue using ceiling prices established under GCPR until Feb. 20, 1952. CPR 30, Amdt. 28 (eff. Jan. 4).

**Tobacco:** Authorizes increased price ceilings for redrying services on the 1951 crop of practically all domestic cigarette tobaccos. CPR 34, SR 9 (eff. Jan. 9).

**Honey:** Exempts honey that is processed and sold by commercial packers from price control. GOR 7, Amdt. 10 (eff. Jan. 12).

**The Pictures**—Cover by Dick Walters—Acme—141, 142; Rus Arnold—46; Associated Photographers—36, 37; Elicson—104 (bot. lt., bot. ctr. lt., bot. ctr. rt.); Fay Foto Service—100; Harris & Ewing—32 (rt.), 86; Int. News—20, 30; Bob Iscar—58 (lt.), 94, 136, 137; Keystone—149; McGraw-Hill World News—152; Homer Page, Magnum—58 (rt.), 59, 60, 64; Stephen Michael—81, 82; Reni—32 (lt.); Wide World—28; Dick Walters—56.



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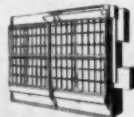


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PRECIPITATORS





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Under the heading "Careless smoking habits" you'll find such oddities as the

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# INTERNATIONAL OUTLOOK

BUSINESS WEEK  
JANUARY 12, 1952

A  
BUSINESS  
WEEK  
SERVICE

Stalin has the West guessing as to his next moves in the Far East.

At Panmunjom the Communists have the Korean truce talks badly snarled.

On the Indo-Chinese border the Chinese Reds seem ready to intervene openly in the war against the French.

In Paris Vishinsky is dangling the hope of settling both the Korean and Indo-Chinese wars at the Security Council level.

Stalin may hope to score at least two gains from these tactics:

(1) Pressure the U. S. into swallowing Chinese truce terms.

(2) Force the harassed French into making a deal with Ho Chi-minh, the Red Indo-Chinese leader.

It's too early to say whether the Kremlin's tactics will pay off. But already there are signs that they may bring Stalin some dividends.

• Last week the smaller U.N. nations forced the U. S. to agree to a Security Council meeting on the causes of world tension.

• Foreign Minister Schuman of France said the other day that Paris would welcome a truce with Ho Chi-minh.

• U. S. negotiators in Korea are still ready to modify their armistice proposals to find a formula the Chinese will buy.

Still, you can rule out (1) a shift of the Korean truce talks to the Security Council, and (2) a French deal over Indo-China without U. S. approval.

Washington thinks that the Kremlin is bluffing when it threatens to invade Indo-China and torpedo the Korean talks.

Our Russian experts believe the Kremlin wants to stop the fighting in the Far East. A Chinese thrust into Indo-China would mean that Stalin is ready to gamble on a general war now. Washington discounts this, feels that he is just jockeying for the best terms in Korea and Indo-China.

But you can't rule out the possibility that the Chinese will seep into Indo-China gradually, finally tip the scales against the French.

If that happens, it won't be another Korea for the U. S. But we would have to take some military action, and so would the U.N. With Indo-China lost to the West, Malaya, Burma, and Siam would fall to the Communists in short order.

France's latest political crisis is a hard blow to Atlantic defense plans. It will delay, maybe even kill, agreement on the Schuman coal-steel pool and the joint European army.

In France itself, the crisis could lead to more inflation, less defense spending. The National Assembly refused Plevin the economies and new taxes he wanted.

Meantime, the government is running into the red at an estimated clip of \$1-billion a year.

Many Paris observers say that the Plevin-style center coalition is finished, that any new government must lean either on the Socialists or on the Gaullists.

If the shift is toward the Socialists (leftists), there'll be few important changes in foreign policy. On the other hand, the Socialists probably would demand a cut in arms spending and more money for the social services.

# INTERNATIONAL OUTLOOK (Continued)

## BUSINESS WEEK

JANUARY 12, 1952

If the de Gaulle forces join a right-wing coalition, the whole blueprint for the North Atlantic Treaty Organization might have to be rewritten. The Gaullists don't buy the European army plan, the Schuman plan, or the present NATO setup. They would demand a bigger role for France, a freer hand, and much more U. S. aid.

The latest drop in London's gold reserves (\$934-million during the last quarter of 1951) has been a real shock to the British public.

Drastic action on the home front should now be easier for the Churchill government, so in the next few weeks you can expect Chancellor Butler to push through:

- (1) A cut of £300-million or more in nondefense spending (page 149).
- (2) A cut in domestic consumption of coal, to provide more for export. Also, more steel will be channeled to export industries at the expense of the home market.

Financial men in London think the gold loss won't be nearly so high this quarter. They count on these factors to slow down the drain:

- A big drop in British imports.
- Some cuts in sterling area imports from the U. S. and Western Europe.
- Aid from the U. S. under the Mutual Security program. This should amount to \$300-million in the first six months alone.
- Renewed U. S. buying of Malayan tin.

Still, it's a real question whether these will offset the current flight from the pound. More U. S. help seems to be in the cards if Britain's defense program is to be saved.

India is to get \$54-million in Point 4 help—as the first installment in a long-term development program.

The money will go for about 50 farm development centers. The ultimate aim is to save India up to \$500-million a year on its food import bill.

A major policy decision is behind the deal. Washington now thinks of India as the keystone of our Asia policy. That means Indian living standards must be boosted faster than Communist China's. Otherwise, say the policy planners, all Asia may climb aboard the Red bandwagon.

Current U. S.-Brazilian negotiations on a military aid pact will lead the way for talks with nearly a dozen Latin American nations.

Washington hopes to get our Latin neighbors to contribute more to hemisphere defense. To get things rolling, we'll put up \$37-million in aid this year.

Some big U. S. firms face a bad time in Brazil—a freeze on the transfer of profits from their Brazilian investments (page 150).

No one is quite sure, not even the Brazilians, how hard the new policy will hit U. S. interests. Meantime, observers in Rio de Janeiro expect the big American companies to fight for a decent break.

That will be hard to get, though, unless Brazil sets up a legal, free foreign exchange market for capital transactions. There's talk in Rio now of a multiple exchange rate system. It would have pegged rates for key exports and imports, but a free market for profit remittances and new investment deals.

# BUSINESS ABROAD



CUSTOMERS RUSHED to January sales. But there weren't enough of them. So . . .

## Business Sours in Britain

Churchill isn't giving British businessmen what they hoped. The deflation screw is tightening all the time in the fight to keep Britain solvent.

Last week British businessmen got one more in the series of shocks and disappointments they've had since Churchill's Conservatives won the election late in October. Chancellor of the Exchequer R. A. Butler revealed that London's gold reserves had dropped \$934-million in the last quarter of 1951, bringing the half-year's loss to more than \$1.5-billion. That practically guaranteed a still tighter squeeze on businessmen and consumers alike.

Almost overnight the inflationary glow has faded from British business life. A few months ago businessmen operated on the principle that anything is better than hanging onto cash. They had a grand spree of buying materials, equipment, trucks, anything useful, whether they needed it or not. They revamped executive offices and showrooms almost recklessly by British standards.

Now they are canceling orders right and left, halting their revamping process midway. Instead, they are accumulating cash in the banks to keep themselves more liquid.

• **Butler's Pinch**—Butler's monetary squeeze came soon after the election. It hurt business plenty. The tightening

of credit and the raising of interest rates set off a big slump in government securities, in which most business reserves are invested. This also resulted in huge capital losses for the banks. At the same time, the Treasury pushed them to cut business loans. The screw turned slowly, but already it has pinched personal borrowers, retail and wholesale traders, and small manufacturers who depend on bank loans for working capital.

Personal spending for luxuries was cut off suddenly by big stock market losses, worsening business prospects, and refusal of the banks to renew loans even against high-grade security.

• **Recession, Anyhow**—The government's anti-inflation moves came at a moment when the consumer goods industries were beginning to feel the first serious postwar recession. Even the traditional January sales didn't reverse the trend. This recession can't be hung on Butler—it seems to have been caused by the same factors as the recent slump in soft goods buying in the U.S.

The combined impact cut orders drastically for mills making textiles, clothing, shoes, carpets, furniture, and

consumer gadgets. Many plants are working short time; some are even closing. Fortunately, most companies in these lines are financially strong after six years of rising profits. Most are able to take their losses, pay their key workers, and wait for a recovery in trade. But the weaker companies have begun to release labor, sell inventories at distress prices, and cut back re-equipment orders.

• **More Blows**—Other businesses have been hit by two additional moves the Churchill government has made:

• A heavy cut in imports has hit the traders who live on imported consumer goods, especially those who have depended on canned foods from France, Holland, and West Germany.

• Thousands of building contractors have been hurt by the government's cut in nonresidential construction. These contractors were fervent Conservative voters, who counted on Churchill to end the Labor government's building restrictions.

• **Mixed Blessing**—The boom in hard goods industries continues, though it's a mixed blessing for business. Production is hamstrung by shortages of labor and of metals—especially steel, copper, zinc, brass, steel alloys, and aluminum. Many plants that have huge backlogs of orders are working part-time. For example, the tube making group, Britain's biggest private steel consumer, has just run through its steel stocks and is cutting output. That forces dozens of plants that make bicycles, metal furniture, and appliances to take a reef in their operations.

Auto plants in the Oxford and Birmingham area also are working part-time due to lack of steel. (They are tooling for defense work, but haven't reached the production stage yet.) To ease the situation, the government has restored wartime steel rationing. Meanwhile, plants that supply tires and accessories for the auto makers have been forced to cut their operations.

• **Could Reverse Policy**—Until Britain has more steel, rationing won't help much in the metalworking industries. But the government could help the soft goods makers by easing credit restrictions and speeding certain defense contracts. In fact, the temptation to do this is very strong, and it may yet be done. One example: Churchill's last decision before leaving on his U.S. trip was to approve a big, but postponable, Army contract for uniforms. This was given to the Yorkshire clothing industry, which otherwise faced unemployment.

But Churchill seems determined to carry through the "unpleasant meas-

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ures" he promised in a recent radio broadcast to the British people. He knows that Britain's international position depends on restoring the country's solvency and confidence in the pound sterling. He'll probably stick to this program even if Butler and other ministers feel like back-tracking after listening to bitter complaints from their business supporters.

Churchill knows that a deflation in civilian demand is essential to make Britain's armament program feasible. What's more, he knows that the full impact of defense production won't hit for several months yet. By midsummer defense plants should be starting mass production; that means a bigger demand on British resources.

• **Worse to Come**—This explains why Churchill has in mind still another dose of deflationary medicine for the British economy. So far, private demand has been reduced, but government demand is still uncut. Now Churchill contemplates a cut in the government's nondefense spending, deep enough to make up for the increases ahead in defense spending.

In the fiscal year starting Apr. 1, defense spending will probably be £700-million more than in the current fiscal year. Tax increases may yield half that sum. But the other £350-million must come out of government spending. As Churchill sees it, the most practical way to get the money is to cut food subsidies down by £200-million, then slash another £150-million out of the frills. An even bigger cut may be needed if allowance is made for the planned drop in British imports.

• **Three Years**—This adds up to a sizable cut in British living standards. So it's no wonder that Churchill has asked Britain to allow him three years to put the nation through an economic wringer.

There's been no time yet for the new policies to reverse the decline in London's gold reserves. Whether they will do the job or not depends partly on other members of the sterling area. At a meeting of Commonwealth finance ministers this month, Britain will ask for new import cuts all around and stress the need for domestic deflation by every member country. And, of course, Churchill hopes to get some aid from his Washington visit (page 21).

For business, the next turning point will come at the end of January. That's when Parliament reopens and the government announces the second half of its economic policy—the cuts in government spending. If food subsidies are slashed, Britons will have even less to spend on consumer goods, and business will feel the effect immediately. For business, then, another big test is still ahead.

## Freeze in Brazil

**Crackdown on foreign investors limits profit remittances. It may mean nothing left to send home.**

U. S. and Brazilian businessmen who were expecting the biggest year yet for foreign investment in Brazil (BW—Dec. 29 '51, p. 97) were rocked back on their heels last weekend. For the time being, and for many U. S. investors, there'll be a freeze on sending home profits, interest, and capital from Brazil. And so 1952 will be a period of watchful waiting while the dust settles around a new investment policy there.

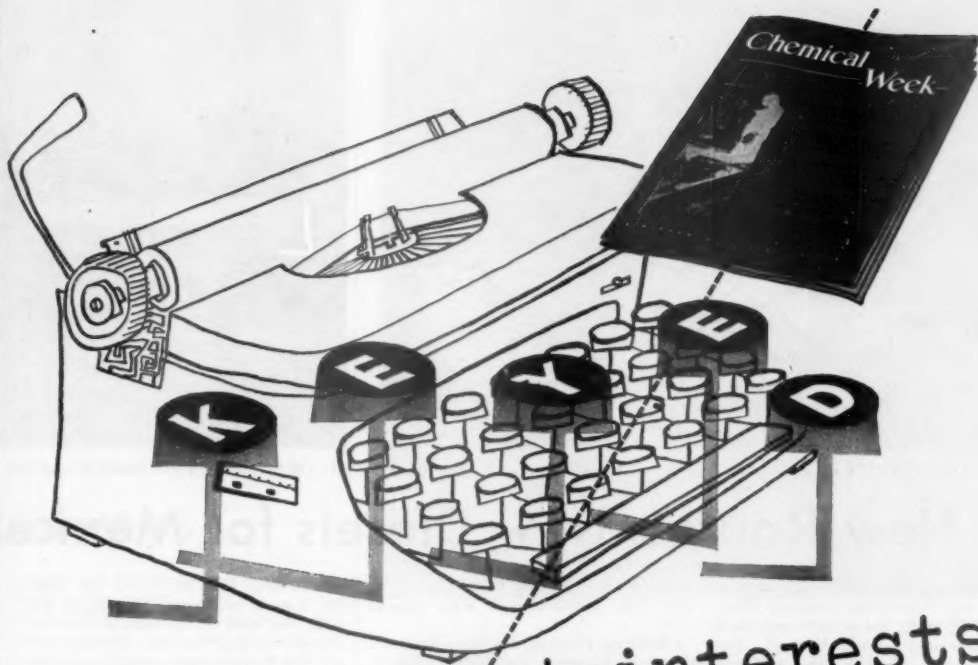
The new system took shape in a series of explosions over the past two weeks. On New Year's Day, after a year in office, President Vargas blasted his predecessor's regime for permitting the "plundering" of Brazil by foreigners remitting their profits. Then the Bank of Brazil stepped in, and last weekend the new regulations were announced.

• **Healthy Surplus**—The old ruling, issued in 1946 by President Dutra, guaranteed profit remittances of up to 8% of registered capital, allowed repatriation of original capital up to 20% yearly. But profits on any well-run operation in Brazil average more than 40%—so foreign investors found themselves with healthy surpluses.

The Bank of Brazil cooperated, ruled that these could be registered as capital, repatriated, and included in the capital base on which the 8% figure was totted up each year. So the capital base pyramided, and businessmen were able to remit profits equal to multiples of their original investment and have an even greater base for future remittances.

• **8% Top**—The new law will insist that remittances stick to the 8% figure. Any repatriation of capital will reduce—not increase—the capital base. What's more, the regulation will be retroactive: the Bank of Brazil will treat as capital repatriation all amounts remitted in excess of 8%. The clincher: When a foreign investment has been found to have returned an amount equal to its permissible profits and capital, it will cease to be a "foreign investment" insofar as it is eligible for foreign exchange.

One U. S. banker in Rio de Janeiro figures no investment in Brazil over 10 years can possibly have failed to use up all allowable profits and capital. And since Brazil is having trouble meeting its exchange commitments, there'll be none left over for non-qualifying foreign investors.



## to management interests

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MEXICO BOUGHT a Southern Pacific subsidiary, modernized a main line from Laredo.



MEXICO BOUGHT 175 diesels, leaving only

## New Routes, New Diesels for Mexican

Mexico's ancient, creaking railroad system has come near breaking down completely under the nation's industrial expansion since World War II. For lack of trains, freight often remains stacked high for days at entry points such as Laredo and Vera Cruz. Passenger trains are also far between; buses and airplanes have grabbed off virtually all the tourist and passenger traffic.

This year, however, Mexican businessmen, U.S. importers and shippers, and tourists will see signs of a change. A \$145-million railroad overhaul program is putting Mexico well on its way toward a modern rail system. And last month Mexico took another big step toward railroad integration: Secretary of the Interior Angel Carvajal plunked down \$12-million for the Southern Pacific R.R. of Mexico.

• **Everybody Happy**—That purchase was a good deal for both sides. The U.S. Southern Pacific had found its 1,500-mi. Mexican branch a managerial headache and a poor money maker; to the Mexican government, SP was a maverick, the last privately owned line among some 12,000 mi. of major railroad. The purchase just about wrapped up the nationalization of Mexico's railroads, begun in 1907 under dictator Porfirio Diaz.

Now SP of Mexico fits into the overhaul program; it will probably get a new roadbed and new diesel locomotives. Though the SP route serves rich farm, cattle, and mining regions (map), Mexicans have griped for years about its rickety equipment and poor service. The U.S. parent company says the

Mexican government pegged rates so low that improvements were impossible.

• **Buildup**—Ferrocarriles Nacionales de Mexico (Mexican National Railways) were in even worse shape when President Miguel Aleman took office in 1947. The rail system had been limping along on obsolete equipment and notorious mismanagement since the Diaz days. Aleman was determined to give it a thorough facelifting; he called in a political pal, Manuel Palacios, to do the job pronto.

Palacios, a smooth, fast-talking operator, started to pull together all the equipment he could lay his hands on. Money was no problem. Palacios swung a \$17-million loan from the Export-Import Bank; soon he got another \$56-million as part of Ex-Im's 1950 \$150-million credit to Mexico. Aleman provided him with a Mexican budget that upped the kitty to \$145-million.

With holes burning in his pockets, Palacios bought 175 diesel locomotives in the U.S. He bought 1,700 freight cars, rented 8,000 more. To improve passenger service in a hurry, Palacios talked with U.S. railroad magnate Robert R. Young, bought 69 passenger cars (\$20,000 a car) that the Chesapeake & Ohio R.R. was retiring.

• **Speedup**—Meantime, Palacios found that his new diesels could haul trains at speeds close to 100 mph. He figured that might help in the battle for tourists with the airlines and buses. But engineers warned that the rolling stock and the track couldn't stand such speed.

That sent Palacios out to buy 150,000 tons of heavy rail (112-lb.) in the U.S.; he used it to rebuild the key 800-mi. roadbed between Mexico City and the United States border (in color on map). When 150,000 tons of heavy rail weren't enough, Palacios sent a buyer to Europe to scare up another 55,000 tons.

The line was finished last fall. Though the new track cut six hours off the running time, Palacios still couldn't open the throttle to 100 mph.—the cars just couldn't take it. So he sent to Europe again, ordered three high-speed luxury trains in Switzerland and 39 passenger coaches in Germany. They can stand the speed, says Palacios. And, he adds, they cost 50% less than they would have in the U.S.

• **Luxury Service**—Palacios boasts that, when the Swiss trains arrive next May, he'll haul passengers from the border to Mexico City in 16 hours. That way, he hopes to slice into the airline and bus business. Buses take 24 hours; airlines take five (trips to and from airports can double that time). As bait for tourists, Palacios promises posh appointments on his trains—air conditioning, club and lounge cars, barber shops, etc.

The travel business is nothing to be sniffed at. Last year 400,000 U.S. tourists—coming mostly by car and plane—left \$174-million in Mexico; around 500,000 are expected in 1952. But the Mexican National officials aren't kidding themselves into thinking that luxury passenger service alone will solve the rail problem. A lot of work is



10% steam locomotives. It adds up to . . .

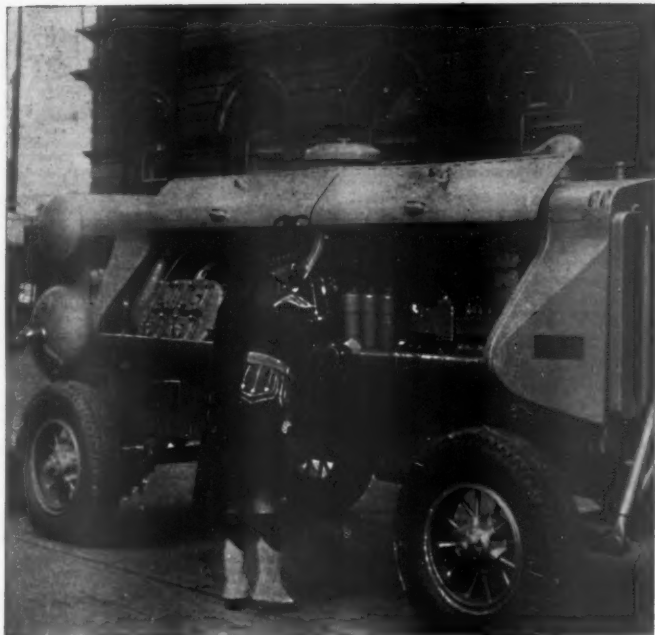
## Railways

going into the whole system, particularly freight facilities.

• **One-Way Traffic**—One aspect of the freight problem that's long gummed up cross-the-border freight service is a U. S. embargo on sending rolling stock into Mexico. Until 1944, cars would cross the border, wander around Mexico for months or even years, sometimes fail to come home at all. More often than not, this was due to the woeful inefficiency of Mexicans; sometimes it was a deliberate effort to hold onto cars. U. S. rail men suspected there was a time explanation, too: A boxcar parked on a remote siding represented a tempting "salvage" job to a Mexican peon. A car might vanish piecemeal overnight. So, since 1944, every shipper planning to send a car into Mexico has had to clear first with the Assn. of American Railroads. If not enough cars are coming out of Mexico, the permit is delayed until the interchange is up to par.

• **Efficiency Ahead**—A big \$11-million freight terminal is under way on the outskirts of the capital—spotted in a new industrial area that boasts such companies as Reynolds Metals Co., Westinghouse, and General Electric. It will provide a 24-hour turnaround for 600 cars daily. Repair shops at San Luis Potosi are being expanded by a \$6-million project; Palacios hopes to manufacture steel freight cars there in the future.

• **Marching On**—New roadbeds and railroads are building, too. The line that Mexican National runs to the Guatemalan border will be completely



## Take a Scot's-eye view of a GARDNER-DENVER

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rebuilt through 300 mi. of swamp and jungle. The track there, so bad that trains frequently leave the rails, will be relaid with heavier rail taken from the Mexico City-Laredo section. The Oaxaca line is being converted to standard gauge; when it's finished this spring, Mexico can boast standard trackage from coast to coast and border to border. Another big job, finished a year ago, drove a railroad through the jungles to the long-isolated Yucatan peninsula.

One of the most ambitious projects bluprinted so far is a line linking Durango, heart of the north central mining area, with the Pacific Coast port of Mazatlan. It's at least a \$20-million, four-year job in rugged terrain. But it will allow strategic raw materials to leave Mexico by sea; it will take a big load off strained rail facilities elsewhere. Today almost all minerals go by rail to the U.S. for processing.

## BUSINESS ABROAD BRIEFS

**Oil in Saskatchewan:** Socony Vacuum last week brought in a well in the southwestern part of the province, 70 mi. east of the Alberta border. It was the first clean, medium gravity oil found in Saskatchewan, promises another boost for Western Canada's oil boom.

**The British are mad.** A Japanese manufacturer has turned out a cigarette lighter that's the image of a British model; it sells for less than \$1 while the British lighter goes for \$12. London is protesting to Tokyo on grounds that British design and workmanship have been copied.

**Twin export subsidiaries** have been set up by the Dow Chemical Co. Dow Chemical Inter-American will sell in the Western Hemisphere; Dow Chemical International will handle the rest of the world.

**U.S. Steel is moving** into British Columbia to cash in on the oil refinery expansion and the opening up of new iron deposits there. Incorporation papers, filed at Victoria, involve the Oil Well Supply Co., a former subsidiary, now a division of Big Steel.

**Israel is in the oil business,** has set up the Israel Fuel Corp. to refine and market up to 30% of the nation's requirements. The first shipment of crude to the company, from Venezuela, arrives soon; later the government-controlled company will get to work on exploration and development at home. Chances are Israel Fuel will try to raise some capital in the U.S.

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## Nolo Contendere

On July 20, 1948, two indictments were issued by the Federal Court for the Western District of Pennsylvania. They charged 17 corporate and 21 individual defendants engaged in various phases of the paint and varnish industry with conspiracy to violate the Sherman Antitrust Act.

Two of the corporate defendants were The Glidden Co. and E. I. du Pont de Nemours Co. Dwight Joyce, president of Glidden, immediately served notice on the government that his company would fight the indictment. He told his codefendants that he was going to fight regardless of what they did.

Glidden proceeded with its defense. So did du Pont. But aside from four individuals against whom the indictment was dismissed, all the other defendants pleaded *nolo contendere*. That's lawyer language for "we're not going to challenge your charge." They ended up by paying fines ranging from \$1,000 to \$5,000.

Trial of the case against Glidden and du Pont began in Pittsburgh last Oct. 15. On Dec. 4 the jury, after seven hours of deliberation, found the defendants not guilty.

This case summarizes a modern dilemma for businessmen. Glidden and du Pont could have entered a *nolo contendere* plea and come off with a nominal fine, as did their codefendants. Both found modern justice very costly. Take Glidden's experience. After Dwight Joyce figured up the cost he found it ran well over \$100,000 out-of-pocket, to say nothing of the time company executives gave to the case. He could have settled for perhaps \$5,000. But he considered it well worth \$95,000 to take the stigma off the company's name. He hopes his action will influence others to fight groundless charges such as the one he fought.

Big Government is perfectly willing to play fast and loose with charges and even with indictments. It knows that fighting back is costly for business. Company officials, tempted to let a charge go unchallenged for \$5,000 rather than beating it down in court at a cost of \$100,000, are in a trying dilemma. But if we are going to keep a free economy, the cost of such fights as these must be reckoned as a necessary part of the price.

## High Priority Business

Congress came back from vacation with plenty on its mind. Out of the pressure of these competing claims congressmen will pick those things they think voters want. This isn't buck-passing. It is what the Declaration of Independence means by a government "deriving its just powers from the consent of the governed." It's up to us what we want Congress to do.

For the well-publicized matters like defense, taxes, and foreign aid there will be no lack of Congressional

attention. But there is another subject vitally important but not spectacular. It has no political sex appeal. It won't even cost money. We believe that one of the big jobs of this Congress is to move forward on the balance of the Hoover Commission recommendations.

The Hoover plan for government reorganization has been on the docket for two years, and the time has come to see it through. After long study of the executive branch it called for putting into government some of the management skills that business knows save money. The 81st Congress faced up to its recommendations, accepted about half of them, saved the country an estimated \$2-billion a year. The other half, calculated to save another \$2-billion, is up to the 82nd Congress. Half the program is good, but more would be better.

The box score of plans passed and plans waiting shows where the sacred cows of bureaucracy are. Of the recommendations for the armed services 95% have been carried out, but Agriculture is still 100% unperfected. Veterans Affairs is almost as bad. Interior still has 80% to go. Personnel management and Post Office, two of the weak spots, have each moved along a grudging 30%, still have 70% to go.

It will take 20 more bills to put the whole plan into service. Six of these, including reforms in personnel management and in the Post Office, stand out as indispensable. Far-sighted businessmen should take time out, even in this year so filled with other urgent plans, to get action on these proposals.

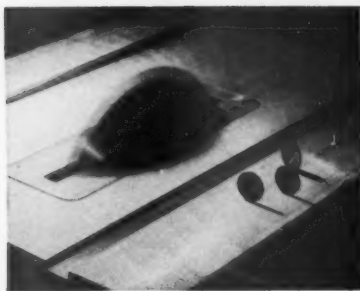
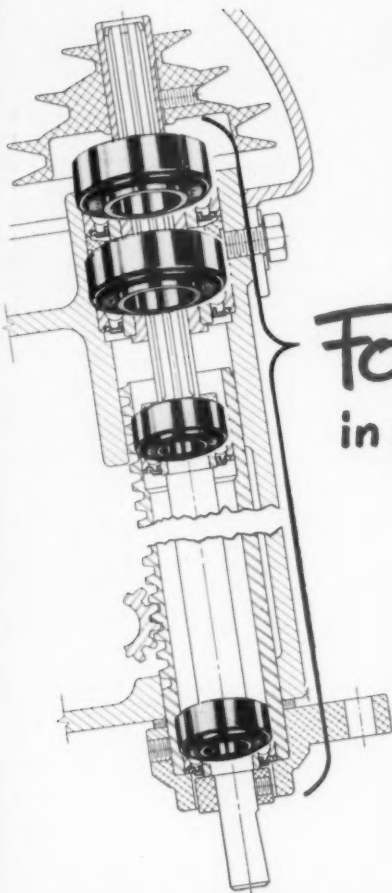
## MSA for ECA

The Marshall Plan now belongs to the historians. In its busy life, a few months short of four years, it provided a \$12-billion transfusion that revived the prostrate economy of postwar Europe.

But the Economic Cooperation Administration is in liquidation only because the Mutual Security Agency was created by the last Congress. Aid to our allies goes on. The Kremlin's aggressive attitude, however, has transformed its emphasis, as the key words in the old and new agency titles indicate: economic to security.

There is less change here, of course, than meets the eye. Military aid is economic and means less disruption to the economies of our allies.

There are many fascinating facets to MSA's taking over from ECA. One of them is this: This country has entered upon a project with no clear terminal date. Economic recovery was a measurable, attainable thing. Security is very much less so. The emphasis on security, a fact that makes our foreign aid program more understandable to Americans, may make it very much harder to taper off and stop. Those who thought otherwise in advocating the shift would do well to think again.



## FOUR star performers in a "ONE TOOL WORKSHOP"

Here's visual evidence of the Star Performers' worth: to the SHOPSMT... an amazingly accurate, versatile, low-priced electric power tool for hobbyists, maintenance departments, and small businesses. With saw blade at full speed, coins stand on edge... a tribute not only to the precision construction of the machine, but to the performance of Fafnir Ball Bearings.

Since the SHOPSMT operates in both vertical and horizontal position and under so many different conditions, the Fafnir head-stock ball bearings are an extremely important factor to successful operation.

Putting accuracy into inexpensive equipment is a problem that Fafnir has solved successfully on many occasions. That's because Fafnir's experience is not limited to just one or two industries but is industry wide. The Fafnir Bearing Company, New Britain, Conn.

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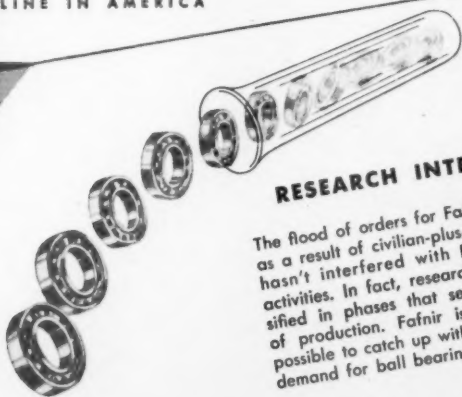
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The Shopsmith spindle floats on four Fafnir pre-lubricated Mechani-Seal Type Ball Bearings. Two support the spindle in the quill, and two support the internally splined drive shaft.

★  
PROGRESS  
REPORT



### RESEARCH INTENSIFIED

The flood of orders for Fafnir Ball Bearings as a result of civilian-plus-defense economy hasn't interfered with Fafnir's research activities. In fact, research has been intensified in phases that seek faster methods of production. Fafnir is doing everything possible to catch up with an unprecedented demand for ball bearings.

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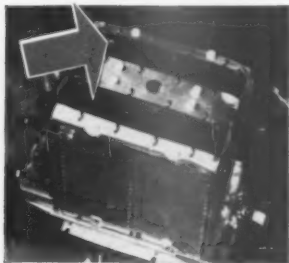
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HELD POSITIVELY TIGHT  
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In the "off and on" action of an automatic toaster, temperatures often exceed 400° F. at vital fastening points as the toaster heats and then cools. The resulting expansion and contraction would soon loosen the screws that fasten the heating elements to the current carrying bus bars—that's why the McGraw Electric Company uses SHAKEPROOF Lock Washers to protect these connections in every "Toastmaster" Automatic Toaster. No failure due to loosening has ever been reported.

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For maximum production efficiency, SHAKEPROOF Lock Washers are available pre-assembled to screws (SEMS) or nuts (KEPS). Separate lock washer handling operations are completely eliminated.

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